

[JOINT COMMITTEE PRINT]

**DESCRIPTION AND ANALYSIS OF
PROPOSALS TO REPLACE THE FEDERAL
INCOME TAX**

SCHEDULED FOR PUBLIC HEARINGS

BEFORE THE

COMMITTEE ON WAYS AND MEANS

ON JUNE 6-8, 1995

PREPARED BY THE STAFF

OF THE

JOINT COMMITTEE ON TAXATION



JUNE 5, 1995

JCS-18-95

JOINT COMMITTEE ON TAXATION

104TH CONGRESS, 1ST SESSION

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INTRODUCTION

The House Committee on Ways and Means has scheduled public hearings on June 6-8, 1995, on proposals to replace the Federal income tax.

This pamphlet,¹ prepared by the staff of the Joint Committee on Taxation, provides a description and analysis of various proposals to replace the Federal income tax. Part I of the pamphlet is an overview of the proposals and issues. Part II is a summary description of present-law Federal income, employment, excise, and estate and gift taxes. Part III is a description of certain proposals to replace the Federal income tax: Value-added tax; the "flat tax" (including H.R. 4585 (103rd Cong.), introduced by Representative Armey, and S. 488, introduced by Senator Specter); S. 722, the "USA Tax Act of 1995" (introduced by Senator Nunn and Senator Domenici); and national retail sales tax. Part IV is an analysis of issues relating to proposed alternative Federal tax systems. Part V provides comparative data on the revenue systems of the United States and certain other western countries.

¹ This pamphlet may be cited as follows: Joint Committee on Taxation, *Description and Analysis of Proposals to Replace the Federal Income Tax* (JCS-18-95), June 5, 1995.

I. SUMMARY

The current U.S. Federal income tax system

The current Federal income tax system consists primarily of an income tax imposed on the income of individuals and corporations. In the case of individuals, the rate of tax depends on the individual's filing status (i.e., single, head of household, married filing a joint return, and married filing a separate return) and the individual's income. For each filing status, the rate schedules are broken into several ranges of income, known as income brackets, and the marginal tax rate increases as a taxpayer's income increases. The marginal tax rates are 15 percent, 28 percent, 31 percent, and, in the case of income over \$256,000, 39.6 percent. Capital gains are subject to a maximum rate of 28 percent.

The U.S. Federal tax system also includes employment taxes which are used to finance Social Security benefits, Medicare, and unemployment compensation, an estate and gift tax, and excise taxes on selected goods and services. Revenues generated from some of the U.S. excise taxes are dedicated to trust funds to be used for specific purposes.

While there is no Federal broad-based consumption tax, most States and many State political subdivisions impose general sales taxes. Most State and local governments also impose property taxes.

In most western economies, the proportion of tax receipts as a share of gross domestic product (GDP) has risen over the past 27 years. The United States has experienced one of the smallest rates of increase of tax receipts as a percentage of GDP over the 27-year period.

The composition of tax receipts (i.e., the extent to which countries rely on individual income taxes, corporate income taxes, employment taxes, property taxes, general consumption taxes, and specific consumption or excise taxes) varies substantially across countries. Among the countries in the Organization for Economic Cooperation and Development, Canada relies most heavily on the individual income tax, followed by the United States. Japan is the most reliant on the corporate income tax. The United States and Japan generate the smallest proportion of their revenue from taxes on goods and services (whether general consumption taxes or taxes on specific goods and services).

Proposals to replace the Federal income tax system

In general

A number of alternative tax systems to replace the present-law income tax system have been proposed. Many of these proposals alter the tax base so that it is based on consumption, rather than income. Such taxes include value-added taxes, consumption-based

flat taxes, and retail sales taxes. Income-based flat taxes have also been proposed.

Value-added taxes

A value-added tax ("VAT") generally is a tax imposed and collected on the "value added" at every stage in the production and distribution process of a good or service. Although there are several ways to compute the taxable base for a VAT, the amount of value added can generally be thought of as the difference between the value of sales (outputs) and purchases (inputs) of an enterprise. A VAT is generally thought of as a consumption tax, not because it uses value added as a base, but because it uses cash-flow accounting principles to measure value added.

The amount of value added may be determined in a number of ways under a VAT. The credit-invoice method has been the system of choice in nearly all countries that have adopted a VAT, and determines the tax liability based on the difference between the aggregate VAT disclosed on sales and purchase invoices of a taxpayer. The subtraction method, which had been included in recently-proposed legislation, is similar to the credit invoice method, but determines tax liability based on records the taxpayer may maintain for nontax purposes.

Flat taxes

In general, a "flat tax" is any tax system with only one marginal tax rate. Many of the flat tax proposals that have been developed do more than simply apply one rate to the current individual income tax base, they redefine the base of the tax as well. There are two main approaches: a consumption base and an income base. The difference between the two is in the treatment of saving: an income-based tax includes the return to saving in the tax base; a consumption-based tax does not. Many flat tax proposals also integrate business taxation and individual taxation through the application of a consumption tax on all businesses at the same marginal rate as that applied to individuals.

H.R. 4585 (103rd Cong.), introduced by Representative Armey, and S. 488, introduced by Senator Specter, are examples of recent consumption-based flat tax proposals.

Savings-exempt income tax

S. 722 ("USA Tax Relief Act of 1995"), introduced by Senators Nunn and Domenici, is another example of a consumption-based tax. S. 722 would replace the current individual income tax with a "savings-exempt income tax", a broader-based individual income tax with an unlimited deduction for net new saving. The tax would be imposed using a three-tier progressive rate schedule. In addition, S. 722 would replace the current corporate income tax with a subtraction-method VAT imposed on all businesses. Thus, in general, business would pay tax on the amount by which their gross receipts from the sale of goods and services exceed their business purchases of goods and services. The bill would provide a refundable credit for employment taxes.

Retail sales tax

A retail sales tax is a tax imposed on the retail sales (i.e., sales to consumers) of taxable goods or services. A retail sales tax will have approximately the same economic burden as a general VAT. However, a retail sales tax may vary from a VAT in terms of administrability, compliance burden, and ease of implementation.

Discussion of issues

In general

Redesigning or replacing the present-law income tax system creates significant issues, many of which have no clear resolution. These issues include the effect of the new tax system once it has been fully implemented, transition issues, and issues relating to areas that create particular problems. In many cases, a solution that addresses one concern may raise others.

Effectiveness of new tax system

In general.—Analysts often evaluate tax systems under four criteria: efficiency, equity, simplicity, and administration.

Efficiency.—Efficiency generally refers to the extent to which the tax system is neutral toward taxpayer behavior or distorts taxpayer behavior (e.g., encourages consumption versus saving), and the extent to which the system promotes economic growth. The present-law income tax system generally increases the cost of future consumption compared to present consumption, and therefore may create a bias against saving. The U.S. saving rate has fallen and is lower than that of other developed countries. However, economists disagree as to whether in fact an income tax does discourage saving, and empirical investigation has provided no conclusive results. Advocates of a consumption-based tax argue that such a tax would eliminate the bias toward current consumption and help increase saving. However, a consumption-based tax would not necessarily eliminate all distortions in favor of consumption, depending on the breadth of the base of the tax and whether different rates of tax applied to different parts of the tax base.

Another aspect of efficiency is the effect on imports and exports. Some advocates of consumption-based taxes argue that such taxes enhance a country's ability to export goods and services and that the current U.S. taxes create a bias against exports. In general, this is because, unlike an income tax, a consumption-based tax could be imposed on imports, but not on exports. However, many economists believe that the substitution of a consumption-based tax for an income tax is unlikely to change U.S. demand for imports or increase the sale of domestically manufactured goods abroad.

Equity.—Whether a tax system is "fair" is by its nature a subjective question. While the notion of "ability to pay" (i.e., the taxpayer's capacity to bear taxes) is commonly used to determine fairness, there is no general agreement regarding the appropriate standard by which to assess a taxpayer's ability to pay. Another aspect of fairness is the extent to which the tax system treats similarly situated individuals the same.

Almost any tax system can be adjusted to the extent desired in order to make the system "fair." For example, various flax tax pro-

posals exempt certain levels of income from tax in order to reduce the tax burden on persons with lower incomes. Similarly, a VAT or retail sales tax could be modified, if desired, to exempt certain items from the tax. For example, many States exempt certain food products from sales taxes. Perceived unfairness in the tax system could also be addressed in other ways, such as through increased transfer payments. While such adjustments may make a system more "fair", they may also make the tax system more complicated, thereby increasing difficulty of administration. Such adjustments, depending on how they are made, may also reduce efficiency by favoring one type of taxpayer behavior over another.

Simplicity and administration.—One of the common criticisms of the current income tax system is that it is complex, making it difficult for taxpayers to comply with the law as well as difficult for the Internal Revenue Service to enforce the law. The extent to which an alternative tax system would be easier to enforce and administer depends greatly on the specifics of the proposal. In general, some of the factors that relate to administration include the number of persons (both businesses and individuals) that would be required to file tax returns, whether or not there are multiple rates (this is particularly important in the case of a consumption-based tax that has different rates on different items), and the extent of exemptions and special rules for certain types of activities.

Transition issues

Any large-scale changes in the tax system will have the potential of creating windfall losses and benefits for certain taxpayers. In changing from an income-based tax to a consumption-based tax, some of the possible effects include changes in prices and interest rates. Transition rules may be designed to alleviate the effect of the transition. Such rules may, however, reduce efficiency gains in switching to a consumption tax.

Specific problems

A number of specific areas present problems in determining a consumption tax base. These include the proper treatment of housing, land, and durable goods, government entities and nonprofit institutions, and financial intermediation services.

II. SUMMARY OF PRESENT-LAW FEDERAL TAX SYSTEM

A. Individual Income Tax

In general

A United States citizen or resident alien generally is subject to the U.S. individual income tax on his or her worldwide taxable income.² Taxable income equals the taxpayer's total gross income less certain exclusions, exemptions, and deductions. Graduated tax rates are then applied to a taxpayer's taxable income to determine his or her individual income tax liability. A taxpayer may reduce his or her income tax liability by any applicable tax credits.

Adjusted gross income

Under the Internal Revenue Code of 1986 (the "Code"), gross income means "income from whatever source derived" except for certain items specifically exempt or excluded by statute. Sources of income include compensation for services, interest, dividends, capital gains, rents, royalties, alimony and separate maintenance payments, annuities, income from life insurance and endowment contracts (other than certain death benefits), pensions, gross profits from a trade or business, income in respect of a decedent, and income from S corporations, partnerships, trusts or estates. Statutory exclusions from gross income include death benefits payable under a life insurance contract, interest on certain State and local bonds, employer-provided health insurance, employer-provided pension contributions, and certain other employer-provided fringe benefits.

An individual's adjusted gross income ("AGI") is determined by subtracting certain "above-the-line" deductions from gross income. These deductions include trade or business expenses, capital losses, contributions to a tax-qualified retirement plan by a self-employed individual, contributions to individual retirement arrangements ("IRAs"), certain moving expenses, and alimony payments.

Taxable income

In order to determine taxable income, an individual reduces AGI by any personal exemption deductions and either the applicable standard deduction or his or her itemized deductions. Personal exemptions generally are allowed for the taxpayer, his or her spouse, and any dependents. For 1995, the amount deductible for each personal exemption is \$2,500. This amount is indexed annually for inflation. The deduction for personal exemptions is reduced or eliminated for taxpayers with incomes over certain thresholds, which are indexed annually for inflation. The applicable thresholds for 1995 are \$114,700 for single individuals, \$172,050 for married individuals filing a joint return, \$143,350 for heads of households, and \$86,000 for married individuals filing separate returns.

A taxpayer also may reduce AGI by the amount of the applicable standard deduction. The basic standard deduction varies depending upon a taxpayer's filing status. For 1995, the amount of the stand-

² Foreign tax credits generally are available against U.S. income tax imposed on foreign source income to the extent of foreign income taxes paid on that income. A nonresident alien generally is subject to the U.S. individual income tax only on income with a sufficient nexus to the United States.

ard deduction is \$3,900 for single individuals; \$5,750 for heads of households; \$6,550 for married individuals filing jointly; and \$3,275 for married individuals filing separately. Additional standard deductions are allowed with respect to any individual who is elderly or blind.³ The amounts of the basic standard deduction and the additional standard deductions are indexed annually for inflation.

In lieu of taking the applicable standard deductions, an individual may elect to itemize deductions. The deductions that may be itemized include State and local income, real property and certain personal property taxes, home mortgage interest, charitable contributions, certain investment interest, medical expenses (in excess of 7.5 percent of AGI), casualty and theft losses (in excess of 10 percent of AGI and in excess of \$100 per loss), and certain miscellaneous expenses (in excess of 2 percent of AGI). The total amount of itemized deductions allowed is reduced for taxpayers with incomes over a certain threshold amount, which is indexed annually for inflation. The threshold amount for 1995 is \$114,700 (\$57,350 for married individuals filing separate returns).

Tax liability

To determine tax liability, a taxpayer generally must apply the tax rate schedules (or the tax tables) to his or her taxable income. The rate schedules are broken into several ranges of income, known as income brackets, and the marginal tax rate increases as a taxpayer's income increases. Separate rate schedules apply based on an individual's filing status. For 1995, the individual income tax rate schedules are as follows:

³For 1995, the additional amount for married individuals is \$750, while the additional amount for single individuals and heads of households is \$950.

Table 1.—Federal Individual Income Tax Rates for 1995

If taxable income is	Then income tax equals
<i>Single individuals</i>	
\$0–\$23,350	15 percent of taxable income.
\$23,351–\$56,550	\$3,503, plus 28% of the amount over \$23,350.
\$56,551–\$117,950	\$12,799, plus 31% of the amount over \$56,550.
\$117,951–\$256,500 ...	\$31,833, plus 36% of the amount over \$117,950.
Over \$256,500	\$81,711, plus 39.6% of the amount over \$256,500.
<i>Heads of households</i>	
\$0–\$31,250	15 percent of taxable income.
\$31,251–\$80,750	\$4,688, plus 28% of the amount over \$31,250.
\$80,751–\$130,800	\$18,548, plus 31% of the amount over \$80,750.
\$130,801–\$256,500 ...	\$34,063, plus 36% of the amount over \$130,800.
Over \$256,500	\$79,315, plus 39.6% of the amount over \$256,500.
<i>Married individuals filing joint returns</i>	
\$0–\$39,000	15 percent of taxable income.
\$39,001–\$94,250	\$5,850, plus 28% of the amount over \$39,000.
\$94,251–\$143,600	\$21,320, plus 31% of the amount over \$94,250.
\$143,601–\$256,500 ...	\$36,619, plus 36% of the amount over \$143,600.
Over \$256,500	\$77,263, plus 39.6% of the amount over \$256,500.
<i>Married individuals filing separate returns</i>	
\$0–\$19,500	15 percent of taxable income.
\$19,501–\$47,125	\$2,925, plus 28% of the amount over \$19,500.
\$47,126–\$71,800	\$10,660, plus 31% of the amount over \$47,125.
\$71,801–\$128,250	\$18,309, plus 36% of the amount over \$71,800.
Over \$128,250	\$38,631, plus 39.6% of the amount over \$128,250.

The individual may reduce his or her tax liability by any available tax credits. Tax credits are allowed for certain business expenditures, certain foreign income taxes paid or accrued, certain child care expenditures, and with respect to certain elderly or disabled individuals. In addition, a refundable earned income tax credit (EITC) is available to low-income workers who satisfy certain requirements. The amount of the EITC varies depending upon whether the taxpayer has one, more than one, or no qualifying children, and is determined by multiplying the credit rate by the taxpayer's earned income up to an earned income threshold. In 1995, the maximum EITC is \$3,112 for taxpayers with more than one qualifying child, \$2,093 for taxpayers with one qualifying child, and \$314 for taxpayers with no qualifying children.

Capital gains and losses

In general, gain or loss reflected in the value of an asset is not recognized for income tax purposes until a taxpayer disposes of the asset. On the sale or exchange of capital assets, the net capital gain generally is taxed at the same rate as ordinary income, except that the maximum marginal rate is limited to 28 percent of the net capital gain.⁴ Net capital gain is the excess of the net long-term capital gain for the taxable year over the net short-term capital loss for the year. Gain or loss is treated as long-term if the asset is held for more than one year.

Capital losses generally are deductible in full against capital gains. In addition, individual taxpayers may deduct capital losses against up to \$3,000 of ordinary income in each year. Any remaining unused capital losses may be carried forward indefinitely to another taxable year.

A capital asset generally means any property except (1) inventory, stock in trade, or property held primarily for sale to customers in the ordinary course of the taxpayer's trade or business, (2) depreciable or real property used in the taxpayer's trade or business, (3) specified literary or artistic property, (4) business accounts or notes receivable, and (5) certain publications of the Federal Government.

In addition, the net gain from the disposition of certain property used in the taxpayer's trade or business is treated as long-term capital gain. Gain from the disposition of depreciable personal property is not treated as capital gain to the extent of all previous depreciation allowances. Gain from the disposition of depreciable real property generally is not treated as capital gain to the extent of the depreciation allowances in excess of the allowances that would have been available under the straight-line method.

Minimum tax

An individual is subject to an alternative minimum tax which is payable, in addition to all other tax liabilities, to the extent that it exceeds the taxpayer's regular income tax owed. The tax is imposed at rates of 26 and 28 percent on alternative minimum tax-

⁴ The Revenue Reconciliation Act of 1993 added Code section 1202, which provides a 50-percent exclusion for gain from the sale of certain small business stock acquired at original issue and held for at least five years. One-half of the excluded amount is a minimum tax preference (see below).

able income in excess of an exemption amount.⁵ The various credits that are allowed to offset an individual's regular tax liability generally are not allowed to offset his or her minimum tax liability. If an individual pays the alternative minimum tax, a portion of the amount of the tax paid may be allowed as a credit against the regular tax of the individual in future years.

Alternative minimum taxable income is the taxpayer's taxable income increased by the taxpayer's tax preferences and adjusted by determining the tax treatment of certain items in a manner that negates the deferral of income resulting from the regular tax treatment of those items. Among the preferences and adjustments applicable to the individual alternative minimum tax are accelerated depreciation on certain property used in a trade or business, circulation expenditures, research and experimental expenditures, certain expenses and allowances related to oil and gas and mining exploration and development, certain tax-exempt interest income, and one half of the amount of gain excluded with respect to the sale or disposition of certain small business stock. In addition, personal exemptions, the standard deduction, and certain itemized deductions are not allowed to reduce alternative minimum taxable income.

B. Corporate Income Tax

Taxable income

Corporations organized under the laws of any of the 50 States (and the District of Columbia) generally are subject to the U.S. corporate income tax on their worldwide taxable income.⁶

The taxable income of a corporation generally is comprised of gross income, less allowable deductions. Gross income generally is income derived from any source, including gross profit from the sale of goods and services to customers, rents, royalties, interest (other than interest from certain indebtedness issued by State and local governments), dividends, gains from the sale of business and investment assets, and other income.

Allowable deductions include ordinary and necessary business expenditures, such as salaries, wages, contributions to profit-sharing and pension plans and other employee benefit programs, repairs, bad debts, taxes (other than Federal income taxes), contributions to charitable organizations (subject to an income limitation), advertising, interest expense, certain losses, selling expenses, and other expenses. Expenditures that benefit future accounting periods (such as the purchase of plant and equipment) generally are capitalized and recovered over time through depreciation, amortization or depletion allowances. A net operating loss incurred in one taxable year may be carried back three years or carried forward 15

⁵ The exemption amount is \$45,000 in the case of joint returns and surviving spouses, \$33,750 in the case of a single individual, and \$22,500 in the case of a married individual who files a separate return. The exemption amount is phased out for individuals with income above certain thresholds.

⁶ Foreign tax credits generally are available against U.S. income tax imposed on foreign source income to the extent of foreign income taxes paid on that income. A foreign corporation generally is subject to the U.S. corporate income tax only on income with a sufficient nexus to the United States.

A qualified small business corporation may elect, under subchapter S of the Code, not to be subject to the corporate income tax. If an S corporation election is made, the income of the corporation will flow through to the shareholders and be taxable directly to the shareholders.

years and allowed as a deduction in another taxable year. Deductions are also allowed for certain amounts despite the lack of an underlying expenditure. For example, a deduction is allowed for all or a portion of the amount of dividends received by a corporation from another corporation.

The Code also specifies certain expenditures that may not be deducted, such as dividends paid to shareholders, expenses associated with earning tax-exempt income,⁷ certain entertainment expenditures, certain executive compensation in excess of \$1,000,000 per year, a portion of the interest on certain high-yield debt obligations that resemble equity, and fines, penalties, bribes, kickbacks and illegal payments.

Tax liability

A corporation's regular income tax liability generally is determined by applying the following tax rate schedule to its taxable income.

Table 2.—Federal Corporate Income Tax Rates

If taxable income is:	Then the income tax rate is:
\$0–\$50,000	15 percent of taxable income.
\$50,001–\$75,000	25 percent of taxable income.
\$75,001–\$10,000,000	34 percent of taxable income.
Over \$10,000,000	35 percent of taxable income.

The first two graduated rates described above are phased out for corporations with taxable income between \$100,000 and \$335,000. As a result, a corporation with taxable income between \$335,000 and \$10,000,000 effectively is subject to a flat tax rate of 34 percent. Also, the application of the 34-percent rate is gradually phased out for corporations with taxable income between \$15,000,000 and \$18,333,333, such that a corporation with taxable income of \$18,333,333 or more effectively is subject to a flat rate of 35 percent.

The maximum rate of tax on the net capital gains of a corporation is 35 percent. A corporation may not deduct the amount of capital losses in excess of capital gains for any taxable year. Disallowed capital losses may be carried back three years or carried forward five years.

Like individuals, corporations may reduce their tax liability by any applicable tax credits. Tax credits applicable to businesses include credits for producing fuels from nonconventional sources, the investment tax credit (applicable to investment in certain reforestation, renewable energy property, and the rehabilitation of certain real property), the alcohol fuels credit (applicable to production of certain alcohol fuels), the research credit (applicable to the incremental investment in certain research and experimental activities), the low-income housing credit (applicable to the investment in certain low-income housing projects), the enhanced oil recovery credit

⁷ For example, the carrying costs of tax-exempt State and local obligations and the premiums on life insurance policies are not deductible.

(applicable to the recovery of certain difficult-to-extract oil reserves), the empowerment zone employment credit (applicable to wages paid to certain residents of empowerment zones), and the disabled access credit (applicable to expenditures by certain small businesses to make the business accessible to disabled individuals). The credits generally are determined based on a percentage of the cost associated with the underlying activity and generally are subject to certain limitations.

Affiliated group

Domestic corporations that are affiliated through 80 percent or more corporate ownership may elect to file a consolidated return in lieu of filing separate returns. Corporations filing a consolidated return generally are treated as a single corporation; thus, the losses (and credits) of a corporation can offset the income (and thus reduce the otherwise applicable tax) of other affiliated corporations.

Minimum tax

A corporation is subject to an alternative minimum tax which is payable, in addition to all other tax liabilities, to the extent that it exceeds the corporation's regular income tax liability. The tax is imposed at a flat rate of 20 percent on alternative minimum taxable income in excess of a \$40,000 exemption amount.⁸ Credits that are allowed to offset a corporation's regular tax liability generally are not allowed to offset its minimum tax liability. If a corporation pays the alternative minimum tax, the amount of the tax paid is allowed as a credit against the regular tax in future years.

Alternative minimum taxable income is the corporation's taxable income increased by the corporation's tax preferences and adjusted by determining the tax treatment of certain items in a manner that negates the deferral of income resulting from the regular tax treatment of those items. Among the preferences and adjustments applicable to the corporate alternative minimum tax are accelerated depreciation on certain property, certain expenses and allowances related to oil and gas and mining exploration and development, certain amortization expenses related to pollution control facilities, and certain tax-exempt interest income. In addition, corporate alternative minimum taxable income is increased by 75 percent of the amount by which the corporation's "adjusted current earnings" exceeds its alternative minimum taxable income (determined without regard to this adjustment). Adjusted current earnings generally are determined with reference to the rules that apply in determining a corporation's earnings and profits.

Treatment of corporate distributions

The taxation of a corporation generally is separate and distinct from the taxation of its shareholders. A distribution by a corporation to one of its shareholders generally is taxable as a dividend to the shareholder to the extent of the corporation's current or accu-

⁸The exemption amount is phased out for corporations with income above certain thresholds, and is completely phased out for corporations with alternative minimum taxable income of \$310,000 or more.

mulated earnings and profits.⁹ Thus, the amount of a corporate dividend generally is taxed twice: once when the income is earned by the corporation and again when the dividend is distributed to the shareholder. Conversely, amounts paid as interest to the debt-holders of a corporation generally are subject to only one level of tax (at the recipient level) since the corporation generally is allowed a deduction for the amount of interest expense paid or accrued.

Amounts received by a shareholder in complete liquidation of a corporation generally are treated as full payment in exchange for the shareholder's stock. A liquidating corporation recognizes gain or loss on the distributed property as if such property were sold to the distributee for its fair market value. However, if a corporation liquidates a subsidiary corporation of which it has 80 percent or more control, no gain or loss generally is recognized by either the parent corporation or the subsidiary corporation.

Accumulated earnings and personal holding company taxes

Taxes at a rate of 39.6 percent (the top marginal rate applicable to individuals) may be imposed upon the accumulated earnings or personal holding company income of a corporation. The accumulated earnings tax may be imposed if a corporation retains earnings in excess of reasonable business needs. The personal holding company tax may be imposed upon the excessive passive income of a closely held corporation. The accumulated earnings tax and the personal holding company tax are designed to ensure that both a corporate tax and a shareholder tax are effectively imposed on corporate earnings.

C. Estate and Gift Taxes

The United States imposes a gift tax on any transfer of property by gift made by a U.S. citizen or resident, whether made directly or indirectly and whether made in trust or otherwise. Nonresident aliens are subject to the gift tax with respect to transfers of tangible real or personal property where the property is located in the United States at the time of the gift. The gift tax is imposed on the donor and is based on the fair market value of the property transferred. Deductions are allowed for certain gifts to spouses and to charities. Annual gifts of \$10,000 or less per donor per donee generally are not subject to tax.

An estate tax also is imposed on the "taxable estate" of any person who was a citizen or resident of the United States at the time of death, and on certain property belonging to a nonresident of the United States that is located in the United States at the time of death. The estate tax is imposed on the estate of the decedent and generally is based on the fair market value of the property passing at death. The taxable estate generally equals the worldwide "gross estate" less certain allowable deductions, including a marital de-

⁹ A distribution in excess of the earnings and profits of a corporation generally is a tax-free return of capital to the shareholder to the extent of the shareholder's adjusted basis (generally, cost) in the stock of the corporation; such distribution is a capital gain if in excess of basis. A distribution of property other than cash generally is treated as a taxable sale of such property by the corporation and is taken into account by the shareholder at the property's fair market value. A distribution of stock of the corporation generally is not a taxable event to either the corporation or the shareholder.

duction for certain bequests to the surviving spouse of the decedent and a deduction for certain bequests to charities.

Since 1976, the gift tax and the estate tax have been unified so that a single graduated rate schedule applies to an individual's cumulative taxable gifts and bequests. Under this rate schedule, the unified estate and gift tax rates begin at 18 percent on the first \$10,000 in cumulative taxable transfers and reach 55 percent on cumulative taxable transfers over \$3 million. A unified credit of \$192,800 is available with respect to taxable transfers by gift and at death. The unified credit effectively exempts a total of \$600,000 in cumulative taxable transfers from the estate and gift tax. The benefits of the unified credit (and the graduated estate and gift tax rates) are phased-out by a five-percent surtax imposed upon cumulative taxable transfers over \$10 million and not exceeding \$21,040,000.¹⁰

A separate transfer tax is imposed on generation-skipping transfers in addition to any estate or gift tax that is normally imposed on such transfers. This tax is generally imposed on transfers, either directly or through a trust or similar arrangement, to a beneficiary in more than one generation below that of the transferor. The generation-skipping transfer tax is imposed at a flat rate of 55 percent on generation-skipping transfers in excess of \$1 million.

D. Employment Taxes

Social security benefits are financed primarily by payroll taxes on covered wages. As part of the Federal Insurance Contributions Act (FICA), an employer must pay a social security tax based on the amount of wages paid to an employee during the year. The tax imposed is comprised of two parts: (1) the old age, survivors, and disability insurance (OASDI) tax equal to 6.2 percent of the covered wages (up to \$61,200 in 1995); and (2) the Medicare hospital insurance (HI) tax in an amount equal to 1.45 percent of the covered wages.¹¹ In addition to the tax on employers, each employee must pay a social security tax equal to the amount of tax owed by the employer. This amount generally must be withheld by the employer and remitted to the Federal Government. Self-employed individuals are subject to a tax that parallels both the employer and employee portions of the social security tax.

In addition to the social security tax, employers are subject to a Federal unemployment insurance payroll tax equal to 6.2 percent of the total wages of each employee (up to \$7,000). Employers are allowed a credit for a percentage of State unemployment taxes. Federal unemployment insurance payroll taxes are used to fund programs maintained by the States for the benefit of unemployed workers.

E. Major Excise Taxes

The Federal tax system imposes excise taxes on selected goods and services, but does not contain a broad-based consumption tax

¹⁰ Thus, if a taxpayer has made cumulative taxable transfers exceeding \$21,040,000, his or her average transfer tax rate will be 55 percent under present law.

¹¹ Since 1994, the HI payroll tax is not subject to a wage cap.

such as a value-added tax or national sales tax.¹² Excise taxes are taxes imposed on a per unit or ad valorem (i.e., percentage of price) basis on the production, importation, or sale of a specific good or service. Among the goods and services subject to U.S. excise taxes are motor fuels, alcoholic beverages, tobacco products, firearms, air and ship transportation, certain environmentally hazardous activities and products, coal, telephone communications, certain wagers, vehicles lacking in fuel efficiency, and luxury automobiles.¹³

Revenues from certain Federal excise taxes are dedicated to Trust Funds (e.g., the Highway Trust Fund) for designated expenditure programs, and revenues from other excise taxes (e.g., alcoholic beverages) go to the General Fund for general purpose expenditures.

¹² Most States and many State political subdivisions impose general sales taxes on retail sales, and all States impose selected excise taxes on certain goods and services (e.g., motor fuels, alcoholic beverages, tobacco products, telephone communications, etc.) For a discussion of such taxes, see Part III.D., below.

¹³ See Joint Committee on Taxation, *Schedule of Present Federal Excise Taxes (as of January 1, 1994)* (JCS-5-94), June 23, 1994, for more details on current Federal excise taxes.

III. DESCRIPTION OF PROPOSALS

A. Value-Added Tax

1. In general

A value-added tax ("VAT") generally is a tax imposed and collected on the "value added" at every stage in the production and distribution process of a good or service. Although there are several ways to compute the taxable base for a VAT, the amount of value added generally can be thought of as the difference between the value of sales (outputs) and purchases (inputs) of an enterprise.¹⁴

The concept of value added has broad application. In addition to being used in designing a tax base, it is used in the measurement of Gross Domestic Product ("GDP"), one yardstick of the economic output of a nation. An understanding of how value added is used in national income and product accounting will highlight two issues regarding the use of value added as a tax base: the difficulty of including nonmarket transactions in the tax base and the distinction between income and consumption as the base.

GDP is defined as the total value of final goods and services produced in a country in a given year. Because GDP attempts to measure the market value of only *final* goods and services, simply adding together the market values of every firm's output overstates GDP if some of that output is used by other firms to produce final goods or services. For example, the total value of automobile production in a given year should not be included in GDP if some of those automobiles are sold to companies that lease them for rental use.¹⁵ The correct measure of value to be included in GDP is the value of automobile production for consumer use plus the value of the rental services provided by the automobile owned by the leasing companies. To obtain a correct measure of automobile production, national income accounts must subtract the value of the production of automobiles that were used as intermediate goods by the leasing company.

Value-added accounting provides a way to measure GDP that, at least in theory, avoids the problem of double-counting the value of

¹⁴ Previous publications by the staff of the Joint Committee on Taxation have discussed some of the broad tax policy and economic issues to be considered in deciding whether a VAT should be enacted and have described the mechanics of various VAT systems. Numerous other publications also address these issues. See, e.g., Joint Committee on Taxation, *Factors Affecting the International Competitiveness of the United States* (JCS-6-91), May 30, 1991 (Part Three: "Discussion of Value-Added Taxes"), pp. 269-341; Joint Committee on Taxation, *Description of Tax Bills ... S. 442 (Value Added Tax) ...* (JCS-11-89), May 11, 1989 (Part III.C., "Analysis of Specific Issues"), pp. 9-31; Department of the Treasury, *Tax Reform for Fairness, Simplicity, and Economic Growth*, Vol. 3, "Value-Added Tax", (1984); Congressional Budget Office, *Effects of Adopting a Value-Added Tax*, February 1992; Government Accounting Office, *Value Added Tax: Administrative Costs Vary with Complexity and Number of Businesses*, GAO/GGD-93-78, May 1993; Alan Schenk, *Value Added Tax: A Model Statute and Commentary*, American Bar Association Section on Taxation, (1989); Lorence L. Bravenec, *Design Issues in a Credit Invoice Method Value-Added Tax for the United States*, American Institute of Certified Public Accountants, (1990); Tax Executives Institute, *Value-Added Taxes: A Comparative Analysis*, (1992); Congressional Research Service, *Value-Added Tax: Tax Bases and Revenue Yields* (CRS Report 92-176E), November 23, 1992 (and publications cited therein); Charles E. McLure, Jr., *The Value-Added Tax: Key to Deficit Reduction?*, American Enterprise Institute for Public Policy Research, Washington, D.C. (1987); and Alan A. Tait, *Value Added Tax, International Practice and Problems*, International Monetary Fund, Washington, D.C. (1988).

¹⁵ For purposes of this example, assume that: (1) there are the only two uses of automobile output (purchases by consumers and leasing companies), (2) the rental services are provided to consumers and are not an intermediate good to other businesses and (3) the leasing companies lease only new automobiles and only for a single year.

intermediate goods and services without forcing one to identify the final use of a good or service. Each firm's contribution to GDP is measured as the difference between the value of outputs and inputs. In the above example, the value added by the automobile manufacturer would be the value of automobiles produced both for consumer use and for leasing, minus the value of all inputs. The value added by the leasing company would be the value of the rental services it provides minus the value of all inputs (including the automobiles it purchased from the manufacturer). The automobiles that are intermediate goods (i.e., acquired by the leasing company for use in its business) are netted out (i.e., treated as an output by the manufacturer and as an input by the lessor) in the GDP calculation. When similar value-added calculations are done for all firms in the economy, the resulting total is the value of all final goods and services produced in that year, which is the desired measure of GDP.

Measured GDP will be an understatement of the "true" output of an economy if some producers' value added is not counted.¹⁶ In the case of national income and product accounting, goods and services that are provided in nonmarket transactions generally are not included in GDP. For example, someone painting his or her own home would be producing painting services, but GDP would only include the value of the paint, paintbrushes, and other materials that are acquired and used;¹⁷ it would not include the value of the labor. There is no market transaction with respect to the "do it yourself" labor, so the labor will not be taken into account in measuring GDP. Even if the labor services are observed, their value may be difficult to measure.¹⁸ Similarly, it is difficult to levy a VAT on nonmarket transactions because they are unobserved or difficult to value, a problem also inherent in the current income tax. Part IV.E.2. of this pamphlet provides illustrations of the difficulty in including nonmarket transactions in the base of a consumption tax.

A second point to note is that in the national income accounting method used to measure GDP, value added is a measure of income, not consumption. GDP is a measure of the final output produced in a given year, and as such it is a measure of the income of the economy. The amount of consumption in the economy will differ from its income by the amount of gross saving done in the year.

A VAT generally is thought of as a consumption tax. As described in greater detail in Part IV.A. of this pamphlet, what makes a VAT a consumption tax is not necessarily its use of value added as a base, but its use of cash-flow accounting principles to measure value added. By contrast, national income and product accounting uses accrual accounting principles to measure value added, and thus ends up with an income base.

¹⁶ As the following discussion will point out, many of these firms may be individuals providing services to themselves from their own efforts.

¹⁷ This example assumes that all of those materials were purchased in the year that the house was painted. Those materials are included in that year's GDP because their sale is treated as the sale to a final consumer. In some sense, the individual is a firm that is producing the services of housepainting. The materials are the inputs and the value of the housepainting is the output. The difference between the value of the housepainting and the cost of the acquired materials is the value of the labor in painting the house and is the amount of the "value added."

¹⁸ In this particular example, however, it may be possible to use, as a proxy, the value of similar services provided by a firm in the business of housepainting.

2. Methods of determining value added

The amount of value added may be determined under a VAT in a number of ways. These include the credit-invoice method, the subtraction method, and the addition method. The credit-invoice method has been the system of choice in nearly all countries that have adopted a VAT,¹⁹ while the subtraction and addition methods have been used in the States of Michigan and New Hampshire.²⁰ A subtraction-method VAT is also known as a business transfer tax.

Credit-invoice method VAT

Under the credit-invoice method, a tax is imposed on the seller for all of its sales. The tax is calculated by applying the tax rate to the sales price of the good or service and the amount of tax generally is disclosed on the sales invoice. A business credit is provided for all VAT on all purchases of taxable goods and services (i.e., "inputs") used in the seller's business. The ultimate consumer (i.e., a non-business purchaser), however, does not receive a credit with respect to his or her purchases. The VAT credit for inputs prevents the imposition of multiple layers of tax with respect to the total final purchase price (i.e., "cascading" of the VAT). As a result, the net tax paid at a particular stage of production or distribution is based on the value added by that taxpayer at that stage of production or distribution. In theory, the total amount of tax paid with respect to a good or service from all levels of production and distribution should equal the sales price of the good or service to the ultimate consumer multiplied by the VAT rate.

In order to receive an input credit with respect to any purchase, a business purchaser generally is required to possess an invoice from a seller that contains the name of the purchaser and indicates the amount of tax collected by the seller on the sale of the input to the purchaser. At the end of a reporting period, a taxpayer may calculate its tax liability by subtracting the cumulative amount of tax stated on its purchase invoices from the cumulative amount of tax stated on its sales invoices.

Example 1. Simple credit-invoice method VAT.—Assume a landowner sells felled trees to a paper mill for \$1,000. The landowner had not been subject to tax with respect to anything used in the production of the trees. The paper mill processes the trees into rolls of paper and sells the rolls to a distributor for \$1,300. The distributor cuts the rolls into sheets, packages the sheets, and sells the packages to a retail stationery store for \$1,500. The retail stationery store sells the entire lot of packages to nonbusiness consumers for \$2,000. The jurisdiction in question levies a broad-based

¹⁹ It is reported that Japan imposes a version of an "accounts-based" subtraction method VAT. The Japanese VAT also has elements of the credit-invoice method. See, Tax Executives Institute, *Value-Added Taxes: A Comparative Analysis* (1992), p. 80.

²⁰ The subtraction method has also been proposed in several recent U.S. legislative proposals. See, e.g., the business tax components of the flat taxes proposed in H.R. 4535 and S. 488 as introduced by Mr. Arney on June 16, 1994, and Sen. Specter on March 2, 1995, respectively (described in Part III.B., below); the "Business Transfer Tax" of S. 2160 proposed by Sens. Boren and Danforth on May 26, 1994; and the business tax component of the "USA Tax" proposed in S. 722 as introduced by Sens. Domenici and Nunn on April 25, 1995 (described in Part III.C., below). In addition, Mr. Gibbons, although he has not introduced legislation to date, has supported the adoption of a VAT in his testimony before the Bipartisan Commission on Entitlements and Tax Reform on October 6, 1994, and in various writings.

VAT at a rate of 10 percent. The tax would be determined as follows:

Production stage	Sales		VAT on Sales		VAT on Purchases		Net VAT
Landowner ..	1,000×.1	=	100	—	(0)	=	100
Paper mill ...	1,300×.1	=	130	—	(100)	=	30
Distributor ..	1,500×.1	=	150	—	(130)	=	20
Retail store .	2,000×.1	=	200	—	(150)	=	50
Total			580	—	(380)	=	200

Thus, a total of \$200 of VAT is assessed and collected in various amounts from the four stages of production. If, instead of a VAT, the jurisdiction in question levied a retail sales tax at a rate of 10 percent, the total amount of tax would also be \$200 (\$2,000 sales times 10 percent), all collected by the stationery store at the retail level.

Subtraction-method VAT

Under the subtraction method, value added is measured as the difference between an enterprise's taxable sales and its purchases of taxable goods and services from other enterprises. At the end of the reporting period, a rate of tax is applied to this difference in order to determine the tax liability. The subtraction method is similar to the credit-invoice method in that both methods measure value added by comparing outputs (sales) to inputs (purchases) that have borne the tax. The subtraction method differs from the credit-invoice method principally in that the tax rate is applied to a net amount of value added (sales less purchases) rather than to gross sales with credits for tax on gross purchases (as under the credit-invoice method). The determination of the tax liability of an enterprise under the credit-invoice method relies upon the enterprise's sales records and purchase invoices, while the subtraction method may rely upon records that the taxpayer maintains for income tax or financial accounting purposes.

The subtraction method may allow more flexibility in determining the amount of value added for a taxable period. For example, capital costs may be either expensed or amortized under the subtraction method. The credit-invoice method, by allowing a credit for the tax paid with respect to capital equipment in the year of purchase, effectively provides for expensing. Similar issues arise with respect to inventory valuation methods, installment sales reporting, long-term contract reporting, the treatment of bad debts, or other attempts to match the recognition of revenues or costs with a specific accounting period.²¹

²¹ To the extent costs are amortized or deferred under the subtraction method, the VAT will be income based.

Example 2. Simple subtraction method VAT.—Assume the same facts as in Example 1 above. The subtraction method VAT would operate as follows:

Production stage	Sales	Purchases	Value added × rate	VAT
Land-owner.	1,000	— (0)	= 1,000×.1	= 100
Paper mill	1,300	— (1,000)	= 300×.1	= 30
Distributor.	1,500	— (1,300)	= 200×.1	= 20
Retail store.	2,000	— (1,500)	= 500×.1	= 50
Totals			2,000×.1	= 200

Comparing Examples 1 and 2, the credit-invoice and subtraction methods yield the same amounts of tax at the same levels of production.

Addition-method VAT

The addition method, like the subtraction method, attempts to measure value added with reference to existing income tax or book accounting records, rather than with reference to the sales and purchase invoices upon which the credit-invoice method relies. Specifically, the addition method adds together the taxpayer's inputs that are not purchased from other taxpayers (e.g., wages, interest, and profits²²) and applies a tax rate to such sum. In this regard, the addition method is a "mirror image" of the subtraction method in that it uses the items of production that the subtraction method ignores. It is for this reason that the subtraction and addition methods are often viewed as alternative, but essentially identical, methods of determining value added. Because of the similarity between the subtraction and addition methods, except as explicitly provided, the addition method will not be considered further in this pamphlet. For these and other reasons, the addition method similarly is ignored when others consider the appropriate method with which to calculate value added.²³

Example 3. The addition method.—Assume a retailer purchases finished goods from a manufacturer and sells such goods to

²² It should be noted that under a consumption-based VAT, "profit" is not net income as calculated for income tax or financial accounting purposes, but rather is net cash flow. Such a definition of "profit" is necessary if the VAT is intended to be a consumption-based, rather than an income-based, tax. Because the determination of this profit element involves a calculation similar to that required under the subtraction method, the addition method generally is not considered to have any administrative advantages over the subtraction method for purposes of determining the value added by a for-profit entity. As discussed in Part IV.E.2., below, an addition-method VAT may be an appropriate means of applying a consumption tax to a not-for-profit entity such as a governmental or charitable organization.

²³ See, Charles E. McLure, Jr., *The Value-Added Tax: Key to Deficit Reduction?*, p. 96: "If, as seems likely, American interest were to focus on the consumption-based VAT, the addition method would have little attraction. . . . The addition method is markedly inferior for several reasons."

consumers from a furnished store it rents. The retailer employs several employees. The income statement of the retailer for a period is as follows:

Item	Amount
Sales	\$10,000
Less:	
Cost of finished goods sold	(5,500)
Salaries and wages	(2,000)
Rent	(1,500)
"Profit"	<u>1,000</u>

Under the addition method, value added would be determined by adding the internally generated (previously untaxed) items of the taxpayer (i.e., salaries and wages of \$2,000 plus profit of \$1,000, or \$3,000). Under the subtraction method, value added would be determined by subtracting from output the cost of inputs acquired from other taxpayers (i.e., sales of \$10,000 less cost of finished goods sold of \$5,500 less rent of \$1,500, or \$3,000). Thus, the subtraction and addition methods arrive at the same amount of value added by examining different items of the taxpayer's income statement.

3. Exclusions under a VAT

In general

Most VATs adopted to date provide special treatment for imported and exported goods and services.²⁴ In addition, most VATs provide exclusions for various goods and services, or classes of taxpayers for economic, social, or political reasons. In addition, certain goods and services are excluded from the VAT due to difficulties in measuring either the amount of the value added or the element of consumption (as opposed to the investment element) with respect to the good or service. (Some of these items are discussed in detail in Part IV.E.).

Goods, services, or classes of taxpayers may be excluded from a VAT either by providing a "zero rating" or an exemption. There may be significant differences between these two alternatives, particularly under the credit-invoice method. If a sale is zero-rated, the sale is considered a taxable transaction, but the rate of tax is zero percent. Sellers of zero-rated goods or services do not collect or remit any VAT on their sales of those items, but are required to register as taxpayers. In this way, sellers of zero-rated items are able to claim credits (and perhaps a refund to the extent the taxpayer does not have taxable sales) for the VAT they paid with respect to purchased goods and services.

Similarly, a seller of goods or services that is exempt is not required to collect any VAT on its sales. However, because such sellers are not considered taxpayers under the VAT system, they may not claim any refunds of the VAT that they may have paid on their purchases. In addition, under the credit-invoice method, purchasers of exempt goods or services generally are not allowed a credit for any VAT borne with respect to such goods or services prior to the

²⁴ See the discussion in Part IV.C. for the general treatment of imported and exported goods and services under consumption taxes.

exempt sale. Consequently, a VAT exemption, as opposed to a zero rating, in a credit-invoice system breaks the chain between inputs and outputs along the various stages of production and distribution and may result in a cascading of the tax (i.e., total tax collected from all stages of production would be greater than the retail sales price of the good times the VAT rate). For this reason, most VAT commentators, while recognizing that exemptions may be useful in easing the administrative and recordkeeping burdens of certain targeted taxpayers or transactions (such as small businesses or casual sales), prefer zero rating as the means of providing VAT relief under the credit-invoice method.

There is little practical experience available to assess how exclusions would operate under a subtraction-method VAT. It is, however, theoretically possible to design exclusions under either a subtraction method that replicate the effects of zero rating or exemptions under a credit-invoice VAT.²⁵ Moreover, exemptions under the subtraction method may relieve the tax on the value added by the exempted activity, but do not result in the cascading that occurs with exemptions under the credit-invoice method.

Examples of zero rating and exemption under the credit-invoice method

Zero rating and exemption under the credit-invoice method have different effects upon the seller and the government, as shown in the examples below.

Example 4.—Assume a logger sells felled logs for \$100 to a furniture maker who makes chairs that are sold for \$150 to a retailer who sells the chairs to consumers for \$170. Further assume that no VAT is imposed prior to the sale of felled logs and the VAT rate is 10 percent. Providing a zero rating under the credit invoice at the various stages of production has the following results:

Effects of zero rating under a credit-invoice VAT

	No one	Zero rating for:		Retailer
		Logger	Furniture maker	
VAT calculations (VAT on taxable sales less VAT on purchases):				
Logger	10 - 0 = 10	0 - 0 = 0	10 - 0 = 10	10 - 0 = 10
Furniture maker	15 - 10 = 5	15 - 0 = 15	0 - 10 = (10)	15 - 10 = 5

²⁵ The imposition of multiple rates VAT rates on different items is all but impossible under the subtraction or addition methods. A more detailed discussion of the design issues related to VAT exclusions and multiple rates of tax is beyond the scope of this pamphlet. For further analysis, see, Joint Committee on Taxation, *Factors Affecting the International Competitiveness of the United States* (JCS-6-91), May 30, 1991, pp. 275-283; Charles E. McLure, Jr., *The Value-Added Tax: Key to Deficit Reduction?*, American Enterprise Institute for Public Policy Research, Washington, D.C., 1987, ch. 6; and Alan A. Tait, *Value Added Tax, International Practice and Problems*, International Monetary Fund, Washington, D.C., 1988, ch. 3.

Effects of zero rating under a credit-invoice VAT—Continued

	No one	Zero rating for:		Retailer
		Logger	Furniture maker	
Retailer	17 - 15 = 2	17 - 15 = 2	17 - 0 = 17	0 - 15 = (15)
Total VAT	17	17	17	0

As demonstrated in the last column in the table above, a zero rating at the retail level relieves all the VAT collected at all prior stages and results in no tax being collected by the government. A zero rating at any level of production before the retail stage results in total government collections being the same as if no exclusions were granted (compare the first three columns in the table above), and also results in the correct amount of total VAT being collected (assuming no price changes as a result of the relief granted).²⁶

Example 5.—Assume the same facts as Example 4. Providing an exemption at the various stages of production has the following results:

Effects of exemptions under a credit-invoice VAT

	No one	Exemption for:		Retailer
		Logger	Furniture maker	
VAT calculations (VAT on taxable sales less VAT on purchases):				
Logger	10 - 0 = 10	Exempt	10 - 0 = 10	10 - 0 = 10
Furniture maker	15 - 10 = 5	15 - 0 = 15	Exempt	15 - 10 = 5
Retailer	17 - 15 = 2	17 - 15 = 2	17 - 0 = 17	Exempt
Total VAT	17	17	27	15

As demonstrated by the last column in the table above, a system that provides an exemption at a final step of production will relieve only the tax related to the amount of value added at the retail stage and not all the tax collected through such point. As demonstrated in the second column of the table above, an exemption at the initial stage of production will shift the amount of tax normally collected at such stage to the next stage and results in the government collecting as much total VAT as if no exemption were provided (compare the first two columns above).

Ironically, an exemption in an intermediate stage may cause a greater aggregate tax burden than if no exemption were granted. For example, in column 3 of the table for Example 5, although the furniture maker pays no VAT on the sale and has no tax liability *per se*, neither the furniture maker nor its customer, the retailer, receive credit for the \$10 of VAT paid by the logger. Thus, if an

²⁶The "correct" amount of the VAT on an item is the cumulative value added through all stages of production times the VAT rate. Thus, the correct amount of the VAT through the retail sale stage in Example 4 is \$17.

intermediate seller is exempt from the VAT, the total amount of VAT paid will be greater than (and bear no necessary relationship to) the correct amount of the VAT for an item.²⁷ This feature may give an advantage to, or cause an incentive for establishing, vertically integrated businesses. Primarily for these reasons, most commentators believe that zero ratings are superior to exemptions for purposes of granting VAT relief under the credit-invoice method.²⁸

Examples of exclusions under the subtraction method

It is difficult to assess how exclusions would operate under a subtraction-method VAT because of a lack of practical experience with these methods. Theoretically, however, it should be possible to design exclusions that would replicate the results of zero ratings or exemptions under the credit-invoice method. In order for a subtraction-method VAT to replicate the results of zero ratings under the credit-invoice method (Example 4 above), a seller to whom relief is targeted would not be taxed on sales but would be allowed deductions for purchases that bore the tax, potentially creating a net deficit upon which a refund could be based. Businesses that acquire goods from zero-rated sellers may or may not be allowed to deduct the cost of such purchases under a subtraction method VAT. If the VAT is based on the "sophisticated" subtraction method, deductions are not allowed. If the VAT is based on the "naive" subtraction method, deductions are allowed.²⁹ A "sophisticated" system may present administrative difficulties that would result in a loss of some of the perceived advantages of the subtraction method and would result in a VAT that resembles a credit-invoice VAT. The following examples assume a "naive" subtraction method VAT.

Example 6.—Assume the same facts as Example 4, except that the VAT is computed under the subtraction method and net losses result in refunds.

²⁷ As in Example 4, the "correct" amount of the VAT for Example 5 is \$17.

²⁸ See, e.g., Charles E. McLure, Jr., *The Value-Added Tax*, American Enterprise Institute for Public Policy, 1987, Chapter 6.

²⁹ The "sophisticated" and "naive" nomenclature can be traced McLure, *The Value-Added Tax*, *ibid.*, ch. 6. Under a "sophisticated" system, the business buyer must know that the seller was subject to tax on the sale in order to obtain a deduction for its purchases. Under a "naive" version, such knowledge is not required, as all business purchases are deductible, whether or not the seller was subject to tax.

Effects of zero rating under a subtraction method VAT

	Zero rating for			Retailer
	No one	Logger	Furniture maker	
Value added calculations (Taxable sales less purchases):				
Logger	100 - 0=100	0 - 0= 0	100 - 0= 100	100 - 0= 100
Furniture maker	150 - 100= 50	150 - 100=50	0 - 100=(100)	150 - 100= 50
Retailer	170 - 150= 20	170 - 150=20	170 - 150 =20	0 - 150=(150)
Total value added	170	70	20	0
Total VAT at 10 percent	17	7	2	0

Finally, an exemption system can be designed for a subtraction-method VAT that does not result in the cascading inherent to the exemption system provided under the credit-invoice method. Such a system would provide a "one-level" exemption for a targeted taxpayer or stage of production. Purchasers of inputs from such exempted sellers would be allowed a full deduction for the cost of such purchases. Thus, the one-level exemption method would reduce government VAT receipts in proportion to the amount of value added at a targeted stage of production or distribution. This form of relief would be appropriate if the goal were to relieve a particular type of taxpayer (e.g., small businesses), but would not be appropriate if the goal were to relieve a particular type of product (e.g., food). However, even such relief may present other problems (e.g., defining the class of favored taxpayers).

Example 7.—Assume the same facts as Example 6. Providing an exemption at the various stages of production has the following results:

Effects of exemption under a subtraction method VAT

	No one	Exemption for:		Retailer
		Logger	Furniture maker	
Value added calculations (Taxable sales less purchases):				
Logger	100 - 0 = 100	Exempt	100 - 0 = 100	100 - 0 = 100
Furniture maker	150 - 100 = 50	150 - 100 = 50	Exempt	150 - 100 = 50
Retailer	170 - 150 = 20	170 - 150 = 20	170 - 150 = 20	Exempt
Total value added ...	170	70	120	150
Total VAT at 10 percent	17	7	12	15

Example 6 demonstrates that a zero rating under a "naive" subtraction method relieves VAT from all value added through the stage of production at which the zero rating is granted and only taxes value added after the tax-favored stage. Example 7 demonstrates that providing an exemption under a "naive" subtraction method only provides tax relief to the value added at the particular stage that the relief is granted. Thus, zero ratings and exemptions under a "naive" subtraction-method VAT provides different results than zero ratings and exemptions under a credit-invoice method VAT (compare Example 4 to Example 6 and Example 5 to Example 7).

Summary of exclusions

In general, most VAT commentators agree that the most efficient VAT would be one that has a minimum amount of exclusions. Under such a broad-based VAT, the credit-invoice and subtraction methods would operate in much the same manner. The commenta-

tors also agree that to the extent exclusions are provided, zero rating is preferable to exemption and the credit-invoice method is a more amenable to zero (or multiple) rating because the credit-invoice method allows the character of the good or service (and the appropriate tax treatment) to be determined at the time of sale. The resulting invoice documents such determination contemporaneously. However, to the extent exemptions are preferable to zero rating (e.g., if one wanted to provide administrative relief for small businesses that provide goods and services at an intermediate stage of production or distribution), the "naive" subtraction method may be preferable to the credit-invoice method in order to avoid the cascading of the VAT (compare Examples 5 and 7, above).

4. GATT legality of border adjustments

A VAT based on the destination principle imposes tax on imports and provides tax rebates on exports. These import charges and export rebates are commonly referred to as "border adjustments" and are a part of nearly all VAT systems currently in place.³⁰

Under the border adjustments, exported goods would not be subject to the VAT through zero-rating the sale of exported goods (i.e., by applying a VAT rate of zero to exports, thus allowing the exporter to claim refundable credits for VAT paid with respect to the purchased inputs). On the other hand, importers would be subject to tax on the full value of imported goods (because inputs with respect to such products had not been subject to the U.S. VAT). Similar treatment would be provided for imported and exported services.³¹

Border adjustments are fully consistent with the General Agreement on Tariffs and Trade (GATT), as long as they do not discriminate against imports or provide over-rebates on exports. Relief from "indirect" taxes on exports does not constitute an illegal export subsidy, while relief from "direct" taxes (such as income taxes) is illegal. "Indirect" taxes are defined to include value-added taxes, and credit-invoice VATs have been accepted as border-adjustable under GATT. Although a subtraction-method VAT has the same base as a credit-invoice VAT, it is not clear whether a subtraction-method VAT is an indirect tax and whether border adjustments under the subtraction-method are GATT-legal.³² Further, because there are no pure subtraction-method VATs currently in existence, there have been no GATT challenges or test cases with respect to the legality of subtraction method border adjustments.

³⁰ See, Part IV.C. for a discussion of border adjustments under a consumption tax.

³¹ The cross-border provision of services presents difficult issues under any VAT. Services may be performed in whole or in part in one jurisdiction and used in another. Theoretically, (1) services performed by a person outside the United States but "used" in the United States would be subject to the United States VAT, (2) services performed by a United States person but "used" in a foreign country would not be subject to the United States VAT, and (3) the value of services used within and without the United States would be allocated between the two jurisdictions based on the relative values of such services. In the case of services, as demonstrated by the present-law income tax controversies surrounding Internal Revenue Code section 482, the identification, measurement, and valuation of "use" is difficult. Certain services that are provided both within and without the United States, such as international transportation or communication, could be allocated pursuant to statutory (although somewhat arbitrary) ratios, as under the present-law income tax. The resolution of the issues related to the cross-border provision of services is beyond the scope of this pamphlet.

³² See, e.g., George N. Carlson and Richard A. Gordon, "VAT or Business Transfer Tax: A Tax on Consumers or on Business?" *Tax Notes*, October 17, 1988, p. 329.

5. Visibility

In the case of a sale to another business, the seller would be required to state the amount of VAT in order for the purchaser to be able to claim a credit for the tax under the credit-invoice method. Because consumers cannot claim VAT credits with respect to their purchases, it is not necessary to disclose the amount of VAT on the retail sales invoices. Indeed, some countries have prohibited the disclosure of VAT on consumer sales.³³ Such a rule would require sellers to determine the status of purchasers at the point of sale. Similar issues arise with respect to State and local sales taxes.

Under the subtraction method, it is unclear whether and how a seller would state the amount of tax applicable to a particular sale on the sales invoice, since the seller's tax liability is not necessarily dependent upon its sales records. For this reason, it has been suggested that a subtraction method VAT is more likely to be a "hidden tax" and that consumers may be less likely to be cognizant of the tax.³⁴

6. Interaction with State and local taxes

Traditionally, State and local governments have imposed retail sales taxes on goods and services acquired within their jurisdiction. Imposition of a Federal VAT and the method used to compute the VAT will have a direct effect on State revenues. First, a determination must be made whether the taxable base for the Federal VAT includes separately-stated State or local taxes. Second, if the Federal VAT is determined under the credit-invoice method, State and local governments must determine whether their taxable bases include the Federal tax (assuming that nothing in the Federal statute preempts State and local governments from "piggybacking" the Federal VAT). However, if the Federal VAT is determined under the subtraction method, the Federal VAT may be incorporated into the price of the good or service under market forces and the State and local tax would be automatically piggybacked upon the Federal tax. Finally, imposing a Federal VAT on goods and services may create complexity to the extent State and local governments provide sales taxes on different bases.³⁵

Canada imposes a national credit-invoice VAT and the various provinces impose local consumption taxes. The Canadian VAT provides that a province may elect into the national system and allow Revenue Canada to collect and remit the provincial portion of the tax on behalf of the province. A similar provision could be inserted into the a U.S. VAT under either a credit-invoice or a subtraction method. However, such coordination would require the Federal and State taxes to have the same tax base and would also require rules for the appropriate treatment of interstate sales.

³³ See, John Due, "Same Unresolved Issues in Design and Implementation of Value Added Taxes," *National Tax Journal*, Vol. 43, No. 4, December 1990, pp. 383, 392.

³⁴ See, U.S. General Accounting Office, *Tax Credit and Subtraction Methods of Calculating a Value-Added Tax*, GAO/GDD-89-87, June 1989, p. 25.

³⁵ See, also the discussion of the interaction of a proposed Federal retail sales tax and similar State and local taxes in Part III.D., below.

**B. "Flat Tax" (H.R. 4585, 103rd Cong. (Rep. Armey) and
S. 488 (Sen. Specter))**

1. In general

A "flat tax" generally is any tax system with only one marginal tax rate.³⁶ For example, one could construct a flat tax out of the current individual income tax by eliminating all but one marginal rate bracket and repealing provisions that impose higher marginal rates by reducing other deductions or exclusions (e.g., the personal exemption phaseout and the limitation on itemized deductions). While such a tax would be a flat tax on the basis of its single rate bracket, it would still contain dozens of tax expenditure provisions, including the home mortgage interest deduction, the charitable contribution deduction, the deduction for State and local income taxes, the earned income tax credit, and the dependent care credit. These special provisions (including exclusions for certain kinds of income, tax credits and deductions, and tax deferral provisions) were added by Congress to the Code over the years to provide incentives for particular kinds of activities or to provide relief to particular kinds of taxpayers.

Many of the flat tax proposals that have been developed do more than simply apply one rate to the current individual income tax base. In addition, they redefine the base of the tax. There are two main approaches: a consumption base and an income base. The gross income of a taxpayer in any year is simply the sum of the taxpayer's consumption and gross saving. Thus, the difference between these two bases is in the treatment of saving. An income-based tax includes the return to saving in the tax base; a consumption-based tax does not. Either a consumption base or a comprehensive income base would represent a significant departure from the present-law individual income tax base, which contains elements of both income and consumption bases.³⁷

An alternative to the consumption base is a comprehensive income base. The Treasury Department described such a base in its study of tax reform in the early 1980s.³⁸ A comprehensive income base would include income from all sources, whether labor income or returns to saving. Capital gains would be treated the same as ordinary income. Sources of income currently excluded from tax, such as employer-provided health insurance, would be included in the base. Items currently given consumption-base treatment in the individual income tax would be put on an income base.

2. Recently proposed flat taxes

On March 2, 1995, Senator Arlen Specter introduced S. 488. On January 4, 1995, Congressman Philip Crane introduced H.R. 214, "The Tithe Tax," in the House of Representatives. In the 103rd Congress, on January 26, 1993, Senator Jesse Helms introduced S. 188, "The Tithe Tax," and on June 16, 1994, Congressman Richard

³⁶ A bracket with a marginal rate of zero could also be provided by allowing a standard deduction and personal exemptions. As long as only one bracket has a marginal tax rate greater than zero, the tax would commonly be referred to as a "flat tax."

³⁷ For a discussion comparing income-based and consumption-based taxes, see Part IV.A. of this pamphlet.

³⁸ Department of the Treasury, *Tax Reform for Fairness, Simplicity and Economic Growth*, Vol. 1, 1984.

Armey introduced H.R. 4585, "The Freedom and Fairness Restoration Act of 1994." The subsequent discussion provides a description of H.R. 4585 and S. 488.³⁹ These bills may be generally described as "consumption-based flat taxes."⁴⁰

3. Description of H.R. 4585 (103rd Cong.) and S. 488

Taxation of individuals

The bills would amend section 1 of the Code⁴¹ to impose a tax equal to 20 percent (in the case of H.R. 4585, the tax rate is reduced to 17 percent for taxable years beginning after December 31, 1996) of the excess (if any) of: (1) the taxable earned income received or accrued during the taxable year over (2) the standard deduction for the year. For this purpose, "taxable earned income" would mean the excess (if any) of earned income (as defined in Code sec. 911(d)(2)) over foreign earned income (as defined in Code sec. 911(b)(1)).⁴² Present-law Code section 911(d)(2) provides that "earned income" means wages, salaries, or professional fees and other amounts received as compensation for personal services actually rendered, but does not include that part of the compensation derived by the taxpayer for personal services rendered by him to a corporation that represents a distribution of earnings and profits rather than a reasonable allowance as compensation for the personal services actually rendered. In the case of a taxpayer engaged in a trade or business in which both personal services and capital are material income-producing factors, under regulations prescribed by the Secretary, a reasonable allowance as compensation for the personal services rendered by the taxpayer, not in excess of 30 percent of his share of the net profits of the trade or business, is considered earned income.

Under the bills, the "standard deduction" would be the sum of a "basic standard deduction" plus the "additional standard deduction." As under present law, the amount of the basic standard deduction would be determined based on the individual's filing status as provided in Table 3 below. (For the sake of comparison, the amounts of standard deductions allowable under present law are also provided in the table.)

³⁹ Many features of H.R. 4585 and S. 488 are identical. Differences between the bills are described below. Both bills are based upon a proposal by Professors Robert E. Hall and Alvin Rabushka, described in *Low Tax, Simple Tax, Flat Tax*, (New York: McGraw-Hill), 1983.

⁴⁰ The bills describe flat taxes because the taxes would be imposed at a single rate on taxable income. These flat taxes may be described as consumption-based because in determining taxable income, returns on investment assets would be excluded and businesses would be allowed to expense the cost of capital assets. See Part IV.A. of this pamphlet for a discussion of the characteristics of consumption-based taxes. Other proposed legislation also contain consumption-based flat taxes. Although the bases for these proposals are the same as the bases for H.R. 4585 and S. 488, (i.e., consumption), the methods for collection differ. For example, H.R. 214 generally would apply at the individual level and would not apply to businesses.

⁴¹ Under present law, Code section 1 imposes the regular income tax upon individuals.

⁴² Under present law, Code section 911 provides for an exclusion of up to \$70,000 of the foreign earned income of a qualified individual. Section 911(b)(1) describes what portion of an individual's earned income constitutes foreign earned income eligible for the exclusion.

**Table 3.—Comparisons of “Standard Deductions” Under
H.R. 4585, (103rd Cong.) S. 488 and Present Law**

Filing status ¹	H.R. 4585 basic standard de- duction	S. 488 basic standard de- duction	Present-law standard de- duction ²
Joint return	\$24,700	\$16,500	\$6,550
Surviving spouse .	24,700	16,500	6,550
Head of household	16,200	14,000	5,750
Married filing separately	12,350	9,500	3,275
Single	12,350	9,500	3,900

¹ The determination of an individual's filing status under the bill is the same as under present law.

² The amounts in Table 3 provided above for the standard deductions apply for calendar year 1995. These amounts are indexed annually for inflation.

In addition, individuals that are blind or age 65 or older may increase their standard deductions under present law. These additional deduction amounts are not provided under the bills.

Under the bills, the “additional standard deduction” would be an amount equal to (1) \$5,000 in the case of H.R. 4585 or (2) \$4,500 in the case of S. 488, times the number of dependents of the taxpayer. (Under present law, a \$2,500 exemption amount is allowed for calendar year 1995 for the taxpayer, his or her spouse, and each dependent of the taxpayer. The exemption amounts are indexed annually for inflation.) Similar to present law, the exemption, basic standard deduction and the additional standard deduction amounts under the bills would be indexed for inflation.

S. 488 would allow individuals to deduct up to \$2,500 (\$1,250 in the case of a married individual filing a separate return) annually for charitable contributions.⁴³ In addition, the bill would make certain changes to the present-law rules regarding charitable contributions. First, deductions for contributions of property other than cash or its equivalent would not be allowed. Second, the adjusted gross income limitations of present law would not apply.⁴⁴

S. 488 also would allow individuals to deduct “qualified residence interest.” For this purpose, “qualified residence interest” would mean any interest that is paid or accrued during the taxable year on acquisition indebtedness with respect to a qualified residence (as determined under present law).⁴⁵ Under the bill, the aggregate amount that may be treated as acquisition indebtedness for any pe-

⁴³ Under present law, individuals are allowed to deduct the greater of their standard deduction or their itemized deductions (including charitable contributions and mortgage interest). The bill appears to allow individuals to deduct charitable contributions and mortgage interest in addition to, rather than in lieu of, the standard deduction.

⁴⁴ Under present law, an individual generally may not deduct as a charitable contribution an amount greater than 50 percent (30 percent in the case of certain contributions) of the individual's AGI.

⁴⁵ Under present law, “acquisition indebtedness” means any indebtedness that is incurred in acquiring, constructing, or substantially improving any qualified residence of the taxpayer and is secured by the residence. Acquisition indebtedness also includes indebtedness secured by the residence resulting from the refinancing of qualified acquisition indebtedness. The aggregate amount of acquisition indebtedness that may be taken into account for any period under present law may not exceed \$1,000,000 (\$500,000 in the case of a married individual filing a separate return.) For this purpose, “qualified residence” means the principal residence of the taxpayer (as defined under sec. 1034) and one other residence selected by the taxpayer and used by the taxpayer as a residence.

riod may not exceed \$100,000 (\$50,000 in the case of a married individual filing a separate return).

The deductions for charitable contributions and mortgage interest are not provided in H.R. 4585.

For wages paid after December 31, 1994, H.R. 4585 would repeal the withholding of income taxes by an employer on such wages. S. 488 does not contain a similar provision.

Taxation of business activities

The bills would amend section 11 of the Code⁴⁶ to impose a tax equal to 20 percent (in the case of H.R. 4585, the tax rate is reduced to 17 percent for taxable years beginning after December 31, 1996) of the business taxable income of a person engaged in a business activity. The tax would be imposed on the person engaged in a business activity, whether such person is an individual, partnership, corporation, or otherwise. For this purpose, "taxable business income" would mean gross active income reduced by specified deductions. "Gross active income" would mean gross income other than investment income.

The bills would allow deductions for (1) the cost of business inputs for the business activity, (2) the compensation (including contributions to qualified retirement plans but not including other fringe benefits) paid to employees for the performance of services in such activity, and (3) the cost of tangible personal and real property used in such activity. For this purpose, "the cost of business inputs" would mean (1) the actual amount paid for goods, services, and materials, whether or not resold during the taxable year, (2) the fair market value of business inputs brought into the United States, and (3) the actual cost, if reasonable, of travel and entertainment expenses for business purposes. Business inputs would not include purchases of goods or services provided to employees or owners.

If a taxpayer's aggregate deductions for any taxable year exceed its gross active income for the year, the amount of deductions allowed for the succeeding taxable year would be increased by the sum of (1) the excess, plus (2) the product of the excess and the three-month Treasury rate for the last month of the taxable year.

The business activities taxes proposed by H.R. 4585 and S. 488 resemble a subtraction-method VAT, as described in Part III.A. of the pamphlet. The difference between the bills' business activities taxes and a subtraction-method VAT is that the bills would allow businesses to deduct compensation expense, while VATs generally do not allow compensation deductions. However, under the bills, the receipt of such compensation is subject to tax at the individual-level at the same flat rate applicable to businesses. Thus, the combination of the business activities tax and the individual tax is roughly equivalent to a VAT. The combination of the individual and business taxes under H.R. 4585 and S. 488 are not exactly equivalent to a VAT because of the allowance for standard deductions (and certain itemized deductions in the case of S. 488) at the

⁴⁶Under present law, section 11 of the Code imposes the regular income tax upon corporations.

individual level.⁴⁷ Alternatively, the bills could be viewed as a VAT that provides individuals with built-in exemptions for a minimum amount of consumption.⁴⁸

***Additional considerations to be taken into account
under a consumption-based flat tax***

It appears that the intent of H.R. 4585 and S. 488 is to replace the present-law corporate and individual income taxes with a flat tax.⁴⁹ As with any proposal to institute a new tax regime, a detailed, section-by-section analysis of present law should be undertaken in order to determine which current provisions are compatible with the proposal (and should be retained) and which are not compatible (and should be repealed). However, as drafted, the bills simply amend present-law Code sections 1, 11, 63, 163, and 170 and leave it unclear whether and to what extent other present-law sections are to apply. For example, the bills do not repeal such present-law provisions as the alternative minimum taxes on individuals and corporations, the personal holding company tax, and the accumulated earnings tax; although it appears that it is intended that these provisions should be repealed. Likewise, the various present-law income tax credits are not repealed under the bills.

Although the following discussion uses H.R. 4585 and S. 488 as frames of reference, it is not intended to be limited to an analysis of the compatibility of the entire present-law Internal Revenue Code with these particular bills or any other similar proposal. Rather, this discussion will highlight certain issues that should be considered in the development of any alternative tax system, whether or not a flat tax. These issues primarily involve: (1) who are taxable persons, (2) what are taxable transactions, (3) what is gross income subject to tax, (4) what are allowable deductions that may offset such gross income, (5) the international aspects of the tax, and (6) what transition should be provided from the present-law tax regime to the proposed system. Some of these issues are discussed specifically below as well as in other parts of this pamphlet.

Taxation of individuals

The bills impose tax on the earned income of individuals. For this purpose, earned income is determined under Code section 911. As described above, section 911 provides a general definition of earned income that would tend to cover most of the income earned by individuals. However, section 911 applies only to a limited number of taxpayers under present law, so it is not clear that it provides the appropriate model for purposes of defining "earned income" in all cases. In addition, certain other issues exist, including the treatment of contributions and distributions from tax qualified

⁴⁷ For a more detailed discussion of the equivalence among consumption tax, see Part IV.A. of this pamphlet.

⁴⁸ As described by Robert E. Hall and Alvin Rabushka in *The Flat Tax: A Simple Progressive Consumption Tax*, a paper prepared for a Hoover Institution conference of May 11, 1995, the exemption amounts of their proposed flat tax are intended to provide relief for lower income individuals under their consumption-based tax. See Part IV.E.4. for a discussion of alternative methods of providing relief from a consumption tax.

⁴⁹ See, statement of Senator Specter accompanying the introduction of S. 488, contained in the Congressional Record, Vol. 141, No. 39 (104th Cong., 1st Sess.), March 2, 1995, p. 3416.

retirement plans and the coordination between the individual tax and the business activities tax.

Tax-qualified retirement plans.—Under present law, a plan of deferred compensation that meets the qualification standards of the Code (a "qualified plan") is accorded favorable tax treatment. Employees do not include qualified plan benefits in gross income until the benefits are distributed even though the plan is funded and the benefits are nonforfeitable. Within limits, the employer is entitled to a current deduction for contributions to a qualified plan even though an employee's income inclusion is deferred.

The treatment of qualified plan benefits under the individual tax of the bills is unclear.⁵⁰ Maintaining the present-law treatment of such benefits (i.e., excluding benefits from income until paid) would be consistent with the overall approach of the bill, and is essentially equivalent to including contributions in income and exempting subsequent earnings from tax (which is the general approach of the bill).

Another approach would be to include benefits or contributions in income when earned or made and exclude earnings from tax (just as investment income is exempt from tax under the bills). Under this approach, issues would arise as to the proper timing of any income inclusion and, in some cases, the value of the benefits to be included. For example, qualified plan participants generally do not have an absolute right to plan benefits at any time. Rather, benefits vest over a period of years. Vesting would have to be taken into account in determining the proper timing and amount of any income inclusion. Also, under certain types of plans, plan participants do not have a separate account, but rather earn a benefit payable in the future. It may be difficult to determine the proper value of such benefits before they are paid.

Under either approach, many of the present-law rules relating to qualified plans, such as the limits on contributions or benefits, could be repealed or substantially modified. Retaining some of the present-law rules relating to such plans, such as the fiduciary requirements, may be beneficial to plan participants and desirable from a retirement income policy perspective.

Coordination between the individual tax and the business activities tax.—Under the bills, self-employment income (i.e., income from sole proprietorships, general partnerships, etc.) appears to be subject to the individual portion of the flat tax. Such income would also appear to be subject to the business activities tax as well. Because it appears that this double tax result was not intended, some coordination between the individual and business activities taxes of the bills are needed. Other flat tax proposals would address this issue by allowing a business a compensation deduction and only taxing wages at the individual level.⁵¹ In such a system, income is either taxed as business income (determined after a compensation deduction) under the business activities tax or as compensation under the individual tax. In that way, income is taxed only once at the same flat rate (although all or a portion of the compensation

⁵⁰ Under the business tax, contributions by an employer to a qualified plan would be deductible.

⁵¹ See, for example, Hall and Rabushka, *Low Tax, Simple Tax, Flat Tax*.

subject to tax at the individual level may be offset by whatever standard deductions or exemptions that are so provided.)

Another issue regarding the coordination between the individual tax and the business activities tax with respect to compensation involves the coordination between the deductibility of compensation at the business level and the inclusion of such compensation at the individual level. This issue is described under discussion of the business activities tax, below.

Finally, the present-law employment taxes, including the self-employment tax of Code section 1401, are not repealed by the bills. Under present law, the self-employment tax is an income-based, rather than consumption-based, tax. If one of the goals of the bills is to simplify the tax law by repealing the various income tax provisions, consideration should be given as to the proper base for the self-employment tax.

Taxation of business activities

Taxable persons and activities.—The bills impose tax on “every person engaged in a business activity.” For this purpose, “business activity” is not defined. Thus, it is not clear whether the tax applies to activities that may be classified as “hobbies” under present law or to casual activities such as garage or yard sales, sales of used automobiles by consumers, or sales of personal residences by occupants. Likewise, it is unclear whether all the activities of tax-exempt entities such as section 501(c)(3) entities are subject to the tax or whether such entities would be subject to tax under the present-law rules applicable to unrelated business income. A similar analysis could be applied to government agencies that provide services (e.g., municipal-owned utility systems).⁵²

Moreover, the jurisdictional scope of the tax is not defined. For example, it is unclear whether the tax applies only to business activity conducted in the United States, whether or not by a U.S. person (however defined) or to any business activity conducted by a U.S. person, whether such activity occurs in the United States or abroad. If the tax applies to activity conducted abroad, it is unclear whether present-law foreign tax credits are allowable.⁵³

Gross active income.—Under the bills (as well as under most consumption-based taxes), “gross active income” means gross income other than investment income. It is unclear whether “gross income” is defined as it is under the present law income tax (i.e., income from whatever source derived) or whether it has a different meaning. Further, “investment income” is not defined. Generally, investment income is often thought to be income from passive assets held by the taxpayer, such as interest income, dividends, rents, royalties, and capital gains. However, income that may be investment income to one type of taxpayer may be active trade or business income of another. For example, interest income on a Treasury bond may be investment income for a manufacturer, but may be active

⁵² See Part IV.E.2. for a discussion of the issues raised by nonprofit and governmental organizations under a consumption tax.

⁵³ See Part IV.C. for a discussion of some of the international trade issues raised by the implementation of a consumption tax. Unlike most VATs, the business portion of the flat tax proposed by Profs. Hall and Rabushka is not based on the destination principle (i.e., no tax on exports and taxation of imports).

income for a bank (see the discussion below with respect to financial institutions).

Deductions—The bills allow deductions for “business inputs,” compensation paid to employees, and the cost of tangible personal and real property used in a business activity. The bills do not allow deductions for fringe benefits, but does not provide a definition of when such a benefit expressly constitutes compensation. The deduction for compensation under the business activities tax could be coordinated with the inclusion of earned income under the individual tax. That is, a business would be allowed to deduct only those items of compensation that its employees are required to include in their incomes. In addition, a business would not be allowed to deduct those items of compensation that are not includible in the gross incomes employees. Under such a system, potentially all compensation would be includible in income, at some level, exactly once.⁵⁴ However, certain compensation could escape taxation. For example, if an entity not subject to tax (say, the Federal Government) supplies a form of compensation not includible in the gross income of its employees (say, employer-provided parking), such compensation would escape taxation because the denial of the deduction has no effect on the tax-exempt entity.

Financial institutions.—As indicated above, the treatment of financial institutions (e.g., depository institutions such as banks and savings and loans and insurance companies) is unclear under the proposed flat tax. It would appear that depository institutions would include in gross receipts interest income received from borrowers since such income likely could not be classified as excludible investment income. However, the bills do not appear to allow a deduction for interest paid to depositors, or for bad debts. Similarly, insurance companies would be required to include in gross receipts premiums received from policy holders but would not be allowed deductions for claims paid or additions to reserves. Thus, based on a literal reading, the bills seemingly would create a gross receipts tax for financial institutions and, given the relatively small profit margin under which some of these institutions operate, may create an effective tax rate in excess of 100 percent. Similar issues arise with respect to other institutions such as regulated investment companies (RICs), real estate investment trusts (REITs), and other investment vehicles.

Presumably, a gross receipts tax on financial institutions is unintended. However, what is intended is unclear. Options include: (1) excluding financial institutions from the tax or (2) providing a special regime for the taxation of such institutions (e.g., by allowing deductions for interest for financial institutions). However, providing special rules for financial institutions requires a definition of such taxpayers.⁵⁵

⁵⁴ Under the present-law income tax, some items of compensation are not subject to tax while other items are subject to two levels of tax. For example, the cost of employer-provided health care is not includible in the income of an employee but is deductible by the employer. Conversely, in the case of a publicly-held corporation, no deduction is allowed for that portion of annual employee remuneration in excess of \$1,000,000 with respect to certain of its executives, even though the executives are required to include the full amount of the remuneration in gross income.

⁵⁵ For a more detailed discussion of the issues presented by financial institutions under a consumption tax, see Part IV.E.3. of this pamphlet.

Accounting methods.—The present-law Federal income tax allows, requires, or denies the use of a number of different accounting methods, including the cash receipts and disbursements method, accrual methods, the installment method, long-term contract methods, mark-to-market methods, original issue discount accruals, and hybrid methods. Allowable methods for tax accounting often conform to methods that the taxpayer may use for nontax purposes (e.g., for purposes of financial statement reporting or for regulatory purposes). It is unclear to what extent the bills require taxpayers to use explicit accounting methods. In some instances, the bills seem to require the use of the cash receipts and disbursements method in certain instances by allowing deductions for “the amount paid” for business inputs and the “actual cost of travel and entertainment.” In other instances, the bills are silent as to permissible accounting methods. To the extent a taxpayer is required to use an explicit accounting method under the new tax system, consideration should be given to the recordkeeping burdens that the use of the method would entail. For example, it may be inappropriate to require a taxpayer to use the cash receipts and disbursements method for tax purposes if it uses an accrual method for financial accounting purposes.

In addition, if the intent of the bills is to exclude interest from gross income and deny the deduction for interest expense, special accounting rules may be required to reflect accurately the time value elements of prepayments and deferred payments, as well as rules that distinguish leasing transactions from financing transactions.

C. “USA Tax Act of 1995” (S. 722) (Sens. Nunn and Domenici)

1. In general

On April 25, 1995, Senators Sam Nunn and Pete Domenici introduced S. 722, (the “USA Tax Act of 1995”). S. 722 would replace the current individual income tax with a “savings-exempt income tax”—a broader-based individual income tax with an unlimited deduction for net new saving. The tax would be imposed using a three-tier graduated rate schedule.

In addition, S. 722 would replace the current corporate income tax with a subtraction-method VAT imposed on all businesses. Thus, in general, businesses would pay tax on the amount by which their gross receipts from the sale of goods and services exceed their business purchases of goods and services. The business tax would be imposed at a single rate of 11 percent.

The bill does not amend the present employment tax system. However, it generally provides individuals with a refundable credit against the individual tax for employee payroll taxes paid by them and businesses with a credit against the business tax for employer payroll taxes paid by them.

2. Individual “savings exempt income tax”

The individual tax, or “savings exempt income tax,” would be a broad-based income tax with an unlimited deduction for new savings. In other words, it is a modified version of a personal consumption tax with one principal distinction. As discussed in more

detail below, borrowing would not be included in income, but rather would only reduce (but not below zero) the net saving deduction. Thus, unlike a personal consumption tax, a net borrower would not pay tax on an amount greater than his income in a given year, even though the net borrowing reflects additional consumption. Thus, the additional consumption generally would be taxed as the loan is repaid.

The individual tax would have a three-tier graduated tax rate structure. As under present law, separate rate schedules would apply based on an individual's filing status. The rate structure would change for the first four years from 1996 to 1999. After 1999, the individual income tax rate schedules are as follows:

Table 4.—Individual Income Tax Rates Under S. 722¹

If taxable income is:	Then income tax equals:
<i>Single individuals</i>	
\$0–\$3,200	8 percent of taxable income.
\$3,200–\$14,400	\$320 plus 19% of the amount over \$3,200.
Over \$14,400	\$2,560 plus 40% of the amount over \$14,400.
<i>Heads of households</i>	
\$0–\$4,750	8 percent of taxable income.
\$4,750–\$21,100	\$380, plus 19% of the amount over \$4,750.
Over \$21,100	\$3,486.50, plus 40% of the amount over \$21,100.
<i>Married individuals filing joint returns</i>	
\$0–\$5,400	8 percent of taxable income.
\$5,400–\$24,000	\$432, plus 19% of the amount over \$5,400.
Over \$24,000	\$3,966, plus 40% of the amount over \$24,000.
<i>Married individuals filing separate returns</i>	
\$2,700	8 percent of taxable income.
\$2,700–\$12,000	\$216, plus 19% of the amount over \$2,700.
Over \$12,000	\$1,983, plus 40% of the amount over \$12,000.

¹ The rate schedules are expressed in 1996 dollars and will be indexed for inflation beginning in 1997.

Gross income

Gross income would be defined broadly to include salaries and wages, pensions, most fringe benefits, annuities, life insurance proceeds, alimony and child support payments, dividends, distributions from partnerships and proprietorships, rents, royalties, interest (other than tax-exempt interest), includible social security benefits, and proceeds from the sale of assets. Exclusions from gross in-

come would be limited to tax-exempt bond interest,⁵⁶ gifts and bequests, certain government transfer and similar payments, certain healthcare payments and reimbursements, certain military pay and veteran's benefits, and a portion of social security payments (generally as under present law).

Net saving deduction

A taxpayer would be allowed a deduction for any increase in his or her "net savings" during the year. "Net savings" would be the taxpayer's additions to qualified savings assets during the year over taxable withdrawals from qualified savings assets during the year. An annual decrease in net savings would constitute taxable income. Borrowing would not be treated as a withdrawal from saving, but generally would reduce (but not below zero) the amount of "net savings" that could be deducted in a taxable year.⁵⁷

Qualified savings assets would include stocks, bonds, securities, certificates of deposits, interests in proprietorships and partnerships, mutual fund shares, life insurance policies, annuities, retirement accounts, and bank, money market, brokerage and other similar money accounts. Qualified savings assets would not include investments in land, collectibles, or cash on hand.

Standard deductions

Under the bill, in addition to certain itemized deductions (discussed below) each taxpayer would be entitled to two types of standard deductions: (1) a family living allowance, and (2) a personal and dependency deduction. Like the standard deduction under present law, the amount of the family living allowance would be determined based on the individual's filing status as provided in the table below.

Table 5.—Comparison of "Family Living Allowance" Under S.722 to Present Law Standard Deduction

Filing status ¹	S. 722 family living allowance	Present-law standard deduction ²
Joint return	\$7,400	\$6,550
Surviving spouse	7,400	6,550
Head of household	5,400	5,750
Married filing separately ...	3,700	3,275
Single	4,400	3,900

¹ The determination of an individual's filing status under the bill is the same as under present law.

² The amounts in Table 5 provided above for present-law standard deductions apply for calendar year 1995. These amounts are indexed annually for inflation.

In addition, individuals that are blind or age 65 or older may increase their standard deductions under present law. These additional deduction amounts are not provided under the bill.

⁵⁶ This exemption may be worth less than relative to present law, because the tax on taxable interest may be deferred under the savings deduction.

⁵⁷ Certain types of debt would not reduce deductible "net savings" in a taxable year, including mortgage debt on a principal residence, debt (of \$25,000 or less) to purchase consumer durables, credit card and similar debts, and \$10,000 of other debts.

Under the bill, a taxpayer also would be allowed a personal and dependency deduction of \$2,550 for the taxpayer, his or her spouse, and each dependent. (This is comparable to the \$2,500 exemption amount allowed for calendar year 1995 for the taxpayer, his or her spouse, and each dependent of the taxpayer under present law.)

As under present law, the amounts of these standard-type deductions would be indexed annually for inflation.

Itemized deductions

The bill would continue to allow deductions for qualified home mortgage interest,⁵⁸ and charitable contributions. In contrast to current law, these itemized deductions would be allowed in addition to the standard deduction, rather than in lieu of the standard deduction. In addition, taxpayers could continue to deduct alimony. Other deductions allowable under present law generally would be eliminated, such as itemized deductions for state and local taxes and medical expenses. The bill would allow a new deduction for certain qualified educational expenses. This deduction generally would be limited to \$2,000 per eligible student per year, and to \$8,000 in total per year.

Credits

The bill would allow certain credits against the amount of tax due. First, a foreign tax credit would be allowed in a manner similar to present law. Second, a credit generally would be allowed for the employee share of payroll taxes paid by the taxpayer. Third, for low-income individuals, an earned income credit similar to present law would be allowed. Finally, a credit would be allowed for estimated and withholding taxes paid. All other existing credits would be disallowed.

Transition

The bill provides certain transition rules (e.g., pre-transition recovery of basis) for purposes of the individual tax. These rules are beyond the scope of this pamphlet.

3. Business tax

In general

The bill imposes a subtraction-method VAT on any business that sells or leases property or sells services in the United States. The tax equals 11 percent of the "gross profits" of the business for the taxable year. "Gross profits" generally is the amount by which the taxpayer's taxable receipts exceed the taxpayer's business purchases for the taxable year. If the taxpayer's business purchases exceed its taxable receipts for the taxable year, the taxpayer generally would be entitled to a loss carryover to future taxable years. Employer payroll taxes paid by the business may be credited against the business tax.

⁵⁸ The home mortgage deduction generally would be the same as under present law, except that no deduction would be allowed for "home equity indebtedness". Cf. Sec. 163(h)(3).

Taxable receipts

"Taxable receipts" generally means all receipts from the sale or lease of property, and the performance of services in the United States. The amount treated as taxable receipts from the exchange of property or services is the fair market value of the property or services received, plus any cash received. Taxable receipts does not include: (1) any excise tax, sales tax, customs duty, or other separately stated levy imposed by the Federal, a State, or a local government on property or services, or (2) financial receipts, such as interest, dividends, proceeds from the sale of stock or other ownership interests.

Business purchases

"Business purchases" generally mean any amount paid or incurred to purchase property, the use of property or services for use in a business activity in the United States other than: (1) compensation paid to employees; (2) payments for use of money or capital, such as dividends or interest, (3) life insurance premiums; (4) amounts paid for the acquisition of savings assets or financial instruments; and (5) amounts paid for property purchased or services performed outside the United States (unless treated as an import). The cost of a business purchase does not include any taxes other than any excise tax, sales tax, customs duty, or other separately stated levy imposed by the Federal, a State, or a local government with respect to the property or services purchased for use in a business activity. The amount treated as paid or incurred for business purchases in connection with the exchange of property or services is the fair market value of the property or services received, plus any cash received.

Business activity

"Business activity" means the sale of property or services, the leasing of property, and the development of property or services for subsequent sale or use in producing property or services for subsequent sale. A business activity would not include casual or occasional sales of property. Also, the following activities are not treated as "business activities": (1) services by an employee for an employer engaged in a business activity, and (2) regular domestic household services.

Treatment of imported and exported goods and services

The business tax generally is based on the destination principle—goods and services are subject to tax in the country in which they are used rather than in their country of origin. Under the destination principle, imported goods and services are subject to tax while exported goods and services are not.

Imported goods and services

Under the bill, an import tax of 11 percent is imposed on the customs value of any property imported into the United States for use, consumption, or warehousing within the United States, and the cost of services imported into the United States. The liability for the tax generally is borne by the person who imports the property or service. No credits are allowed against the import tax.

Businesses that import property or services into the United States for use in a business activity would be allowed to deduct, as a business purchase, the taxable amount (i.e., the customs value) with respect to the imported property or services, provided the import tax was paid in connection with the import of such property or service. However, the business would not be allowed to deduct the amount of the import tax payable with respect to the import of the property or services.

Exported goods and services

Under the bill, the gross receipts of a taxpayer would not include amounts received by the taxpayer for property or services exported from the United States for use or consumption outside the United States. Thus, taxpayers that engage in the export of goods or services often would have loss carryovers because such taxpayers would not have taxable gross receipts but would have deductible business purchases with respect to the export activity.

Treatment of international transportation services

"Taxable receipts" would not include receipts from the transportation of property exported from the United States and would only include receipts from the transportation of property imported into the United States only if such costs are not taken into account in determining the import tax. "Taxable receipts" would include receipts from the transportation of passengers from the United States to a destination outside the United States, but would not include receipts from the transportation of passengers outside the United States to a destination in the United States.

"Business purchases" would not include amounts paid or incurred for the transportation of property exported from the United States. "Business purchases" also would not include amounts paid or incurred for the transportation of property imported to the United States except to the extent such receipts are taken into account in computing the "customs value" for the purposes of the import tax.

"Business purchases" would include amounts paid or incurred in a business activity for the transportation of passengers from the United States to a destination outside the United States, but would not include amounts paid or incurred in a business activity for the transportation of passengers from outside the United States to a destination in the United States.

Accounting methods

In computing its gross profits, a taxpayer generally would be required to use an accrual method of accounting. For this purpose, an amount would not be treated as incurred any earlier than when "economic performance" with respect to the item has occurred. See Code section 461(h). Businesses presently using the cash receipts and disbursements method, however, generally could continue to use that method. The Secretary also could allow certain new businesses to use the cash method. The taxpayer's method of accounting could be changed only with the permission of the Secretary. Special accounting rules would apply with respect to property produced pursuant to long-term contracts.

Under the business tax, business purchases would be deducted when incurred (if the business uses the accrual method) or when paid (if the business uses the cash receipts and disbursements method), even if the purchase relates to inventory, has a useful life of over a year, or will be used to produce other property. This is a principal distinction between the business tax and the present income tax. Under the income tax, the cost of such property generally must be capitalized; under the bill, such costs would be "expensed".

Treatment of financial services

In general

The bill would impose the business tax on the provision of financial intermediation services. Special rules would apply to determine the taxable amount derived from financial intermediation services. In addition, the bill would permit the business user of financial intermediation services to deduct as business purchases any stated fees for such services and any implicit fees allocated and reported to it by the financial intermediary. The bill would provide a method (and reporting mechanism) for allocating the value of financial intermediation services among users of the services.

Definition of financial intermediation services

To ensure that financial intermediation services are subject to the business tax, the bill specifically would treat the provision of financial intermediation services as a business activity. For this purpose, financial intermediation services would be defined to include lending services, insurance services, market-making and dealer services, and certain other services.

Determination of taxable amount

The bill would apply special rules to determine the taxable amount for financial intermediaries. The bill provides that "financial receipts" would replace "gross receipts" in the calculation of the taxable amount for providers of financial intermediation services. Under the bill, "financial receipts" generally would be defined as all receipts properly allocable to the financial^{58A} intermediation services activity, other than contributions of capital. Special rules are provided for determining the "financial receipts" and "business purchases" of banks, insurance companies, and certain financial pass-thru entities. Thus, "financial receipts" would include all amounts that qualify as gross receipts under the general provisions of the bill, such as stated fees and proceeds from the sale of property used in the business. Moreover, financial receipts would include virtually all other inflows of value that would not be treated as gross receipts by other types of businesses. For example, a financial intermediary would treat the receipt of proceeds from borrowings made in connection with its business as a financial receipt.

Similarly, for purposes of the business tax, the bill provides that "financial expenses" would replace "business purchases" with respect to the providers of financial intermediation services. Under the bill, "financial expenses" would include all expenditures that

^{58A} Special rules are provided for determining the "financial receipts" and "business purchases" of banks, insurance companies, and certain financial pass-thru entities.

qualify as business purchases under the general rules, such as the cost of office supplies, equipment and machinery, travel expenses, and the cost of real property used in the business. In addition, certain financial outflows that are not deductible by other businesses would be "financial expenses." Generally these would include: (1) payments of principal and interest on borrowings associated with the financial intermediation services business; (2) the cost of financial instruments, and any payments made under financial instruments, other than the cost of, or payments made under, instruments that represent equity interests in the person engaged in the financial intermediation services business; (3) claims and cash surrender values paid in connection with insurance or reinsurance services; and (4) payments for reinsurance.

Business purchases of financial intermediation services

To avoid cascading of the tax, the bill would permit business users of financial intermediation services to claim appropriate business purchase deductions for the cost of such services. Stated fees charged by financial intermediaries would be deductible under the general business tax rules. Where the cost of the service is not stated (and therefore typically cannot be determined by the customer), the bill generally would require financial intermediaries to determine the implicit fee for the service and to allocate and report the implicit fee to the users of the services. A business purchase deduction generally would be allowed for any implicit fees allocated and reported to a person by a financial intermediary that are related to the person's business use of such services. No deduction would be permitted with respect to implicit fees that are not reported.

Allocation and reporting of implicit fees

The bill would require each financial intermediary to allocate, for each taxable year, the amount of the implicit fees it derives from financial intermediation services among the recipients of the services. The allocable implicit fees of a financial intermediation services business should equal the aggregate amount charged by the intermediary for financial intermediation services, other than the services provided for a stated fee and business loss insurance services. The allocation would have to be made on a reasonable and consistent basis.^{58B}

The bill requires financial intermediaries to report to each recipient of services the amount of the implicit fees allocated to the recipient for the taxable year. The report must be provided within 45 days after the close of the taxable year to which the report relates.

Governments

Government entities would not be subject to the business tax with respect to the following activities: (1) public utility services; (2) mass transit services; and (3) any other activity involving an "essential governmental function" Any other government activity of a type "frequently provided by business entities" would be subject

^{58B} The bill provides a percentage method for allocating implicit fees attributable to borrowing from banks.

to tax. The governments of possessions of the United States are not subject to the business tax.

Tax-exempt organizations

The bill generally would exempt the following types of entities from the business tax: (1) instrumentalities of the United States, (2) organizations described in present-law section 501(c)(3)⁵⁹, (3) certain qualified benefit plans and trusts, (4) religious and apostolic organizations, (5) cemetery companies, (6) certain title and real property holding companies, (7) cooperative hospital service organizations, and (8) cooperative educational service organizations. These entities would be subject to the business tax only with respect to their business activities that would be subject to the unrelated business income tax ("UBIT") under present law. The taxable amount for a "UBIT activity" would be determined in the same manner as the taxable amount for any other business activity subject to the business tax.

Entities (other than those listed above) that are tax-exempt under present law would be fully subject to the business tax on their transfers of property or furnishing of services, even if such activities are substantially related to what historically has been considered to be the exempt purposes of these organizations.

Administration; Consolidated returns

The bill provides that subtitle F of the Code relating to procedure and administration would remain applicable for purposes of the business tax. More explicit rules would be developed at a later date to reflect adoption of the business tax.

Members of an affiliated group would be allowed to file a consolidated return if they are permitted to file a consolidated return under present law.

Transition

The bill provides certain transition rules (e.g., recovery of pre-transition basis) for purposes of the business tax. These rules are beyond the scope of this pamphlet.

D. National Retail Sales Tax

1. Description of retail sales taxes and background

As the name implies, a retail sales tax is a tax imposed on the retail sales price (i.e., sales to consumers) of taxable goods or services.

As described in Part II.D., above, the Federal Government currently imposes excise taxes on various products or services.⁶⁰ However, these taxes generally apply to a narrowly defined class of goods and services, and generally are not imposed at the retail level. Rather, the present-law Federal excise taxes generally are imposed upon manufacturers (as in the case of the alcohol and tobacco excise taxes) or some other intermediate (pre-retail) stage of

⁵⁹ The bill, however, would not exempt organizations that test for public safety or foster test for public safety or amateur sports competition.

⁶⁰ See, Joint Committee on Taxation, *Schedule of Present Federal Excise Taxes (As of January 1, 1994)*, (JCS-5-94), June 28, 1994, for a description the various Federal excise taxes.

the distribution of a product (as in the case of the highway motor fuels tax), or are imposed upon both the consumers and business users of a good or service (as in the case of the communications services tax ("telephone tax") or the air passenger ticket tax).

Most States and many local governments impose general sales taxes within their jurisdictions,⁶¹ and all States impose some form of excise-type tax on specified goods or services. Although the typical State sales tax is familiar to most consumers and appear simple on its face, several issues may arise in the application of such a tax. First, State sales taxes are generally designed to apply to most tangible personal property and selected services purchased by consumers.⁶² Persons other than consumers (i.e., businesses) may be exempted from the tax in a variety of ways. Exemptions may be provided goods acquired as "sales for resale", or for articles for use in manufacture, fabrication, or the processing of personal property for resale, if the article become incorporated in such property. Thus, persons who are not consumers may be subject to the sales tax in certain instances. For example, a furniture maker may be exempt from tax on lumber acquired to manufacture chairs, but would not be exempt from tax on a truck purchased to deliver the chairs to customers. Controversies often arise as to whether an article or a service (such as packaging or utility services) are incorporated into a good or not.⁶³ Most States also provide exemptions for acquisitions by the State and its political subdivisions, and charitable, religious, and educational organizations.⁶⁴ In order to address the regressivity of sales taxes, most States exempt food, but do tax candy, soda and prepared meals; thus requiring distinctions between taxable and tax-exempt items. Similarly, most States do not tax sales of intangible property, raising issues as to whether a particular item represents taxable tangible or tax-exempt intangible property.⁶⁵ Moreover, most States provide broad taxation of personal property, but only limited taxation of services, raising issues whenever a business provides both taxable goods and exempt services to a customer. For example, an automotive repair shop typically provides both goods (replacement parts) and services (labor on installation of the parts) when it repairs an automobile. Finally, a State's sales tax generally do not apply to goods shipped to out-of-State customers. In such cases, the customer likely is subject to a complementary "use" tax in his or her State of residence. However, there are significant compliance problems with State use

⁶¹ It is reported that there are approximately 50,000 separate sales tax jurisdictions in the United States. *Wall Street Journal*, April 18, 1990, p A1. The States of Alaska, Delaware, Montana, New Hampshire, and Oregon presently do not have broad-based sales taxes. The District of Columbia has a sales tax.

⁶² For a detailed discussion of State and local sales taxes, see, Jerome R. Hellerstein and Walter Hellerstein, *State Taxation (Vol. II: Sales and Use, Personal Income, and Death and Gift Taxes)* (Warren, Gorham, Lamont: Boston, MA) 1992.

⁶³ See, for example, *Sta-Ru v. Mahin*, 64 Ill. 2d 330 (1976) and *Burger King v. State Tax Commission*, 51 NY 614 (1980) (whether paper and plastic cups and similar items purchased by a fast-food restaurant were subject to State sales taxes.)

⁶⁴ See, John Due and J.Mikesell, *Sales Taxation: State and Local Structure and Administration* (1983) p.78-80.

⁶⁵ See, for example, Robert W. McGee, *Software Taxation*, National Association of Accountants, 1984, chapters 1 and 3, for a discussion of the issues involved in the application of State sales taxes to transfers of computer software.

taxes.⁶⁶ Several States mail use tax forms to all State income taxpayers and rely upon voluntary reporting of taxable out-of-State purchases.

2. Considerations for a Federal retail sales tax

Recently, there has been interest in replacing the U.S. income tax system with a Federal retail sales tax.⁶⁷ Following is a discussion of some factors that should be considered with respect to the implementation of a Federal sales tax.

In general, the burden of a consumption tax is thought of as being borne by the ultimate consumer of the taxed goods, regardless of where in the production and distribution chain the tax is levied. Accordingly, a retail sales tax will have approximately the same economic burden as a VAT.⁶⁸ Moreover, the tax base on which a retail sales tax is assessed can be chosen to be identical to that used for any VAT. This being the case, it is instructive to examine how a retail sales tax compares to a VAT in terms of administrability, compliance burden, and ease of implementation.

The choice of a retail sales tax to implement a consumption tax may be attractive because the start-up and overall compliance costs of the tax could be small compared to those for a VAT. Part of the reason for these relatively low costs is that a retail sales tax involves only entities that sell directly to end users of the taxed goods or services. This means that the number of taxpayers involved in a retail sales tax is small compared to the number of taxpayers involved in a VAT, which would make taxpayers of all parties involved in the entire production and distribution process. Limiting the number of taxpayers limits the aggregate amount of recordkeeping needed to implement a retail sales tax. In turn, this limits the total cost of the tax system to both the Government and taxpayers.

A retail sales tax can be implemented relatively quickly by having the Federal Government piggy-back on the tax experience of State and local governments.⁶⁹ This experience should indicate who the taxpayers would be under a Federal retail sales tax and perhaps also provide a source of trained tax administrators for the Federal government. A Federal retail sales tax need not utilize the same tax base as that used by any State or local government, and, in fact, a Federal tax might well utilize a base broader than used by any State or local tax. The implementation might be slowed if

⁶⁶ The ability for one State to require an out-of-State retailer to collect that State's sales or use tax on sales into the State (generally through a mail-order catalog sales) is barred by the Commerce Clause of the U.S. Constitution where the retailer has no physical presence in the State. See, *National Bellas Hess, Inc. v. Department of Revenue*, 386 U.S. 753 (1976) and *Quill Corp. v. North Dakota*, 504 United States 298 (1992).

⁶⁷ Senator Richard Lugar has proposed that the current Federal taxes be repealed and replaced with a retail sales tax that would be collected by the States on behalf of the Federal Government. [*Washington Post*, April 20, 1995.] To date, no such legislation has been introduced. For a discussion of similar proposals, see, a paper of Laurence J. Kotlikoff, "Economic Impact of Replacing Federal Income Taxes with a Sales Tax," published by the Cato Institute in December 1992, and a paper of Stephen Moore, "The Economic and Civil Liberties Case for a National Sales Tax," published for a Hoover Institution conference on May 11, 1995.

⁶⁸ For a discussion of the incidence of, and equivalence among, consumption taxes, see Part IV.A. of this pamphlet.

⁶⁹ For a discussion of Federal and State intergovernmental issues with respect to a consumption tax, see Charles E. McLure, Jr., "State and Local Implications of a Federal Value-Added Tax," *Tax Notes*, 1517, March 28, 1988.

the tax base for a Federal retail sales tax is substantially different from that used by any State or local government.

Although tax collection and administration synergies may develop if both the States and the Federal Government have retail sales taxes, this does not mean that one government could or should be the tax collector for the other. First, it is likely that the bases of the tax would be different. Indeed, five States have no general sales taxes at all. Second, if the States were to collect the Federal tax, similarly-situated taxpayers may be treated differently to the extent that one State's collection efforts or interpretation of the Federal law is different than that of another State. If the Federal Government were to collect the States' taxes, the Federal Government would become involved in disputes as to the proper allocation of the tax with respect to interstate transactions. Further, there are no indications that demonstrate that integrated collection would be successful. Many States impose income taxes that are based on Federal income tax law or concepts. Yet, the collection and enforcement of Federal income taxes are separate from that of State income taxes. Similarly, Canada imposes a federal credit-invoice VAT and the various provinces impose consumption taxes. Canadian law explicitly allows the federal government to collect the provincial taxes on behalf of the provinces, but only one province has elected this option.

There are some potentially negative aspects of a retail sales tax that should be examined. For instance, the retail sales tax imposes tax only at a single stage in the production and distribution chain. This increases the opportunity for the evasion of the entire tax when just one party (the retailer) fails to meet their taxpaying duty. As described in Part III.A. above, a VAT (particularly a credit-invoice VAT) is, in some sense, self-enforcing. The complete amount of tax is evaded only when there is some coordination between parties at difference stages of the production and distribution chain.⁷⁰ Another difficulty encountered when considering a retail sales tax is that the retail stage must be defined. In particular, a retail sales tax seeks to include in the tax base only those sales which take place at the last stage of the production and distribution chain (e.g., sales of good and services that are not used as a further part of the production process).

A potential source of controversy might be the designation of persons that would be able to make purchases on a tax-exempt basis from retail outlets. For example, a retail sales tax should exempt purchases by other businesses. This could be accomplished in a number of ways. For sales tax purposes, many States issue identification numbers to businesses to allow them to be exempt from tax on their purchases. However, this approach invites abuse, especially in the case of self-employed individuals or closely-held businesses where the self-employed person or business owner could use the tax exemption to acquire goods for personal use on a tax-free basis. Alternatively, it may be appropriate to tax all sales from retail outlets and establish a refund system to enable exempt purchasers to claim refunds for taxes paid on purchases of goods and

⁷⁰ If credits are refundable in a credit-invoice system, then it may be possible, in some instances, to evade the complete tax through actions taken at the last stage in the production and distribution chain (e.g., by underreporting taxable sales).

services that were used as part of the production process (i.e. establish a process that resembles the mechanism of the credit-invoice VAT described in Part III.A. of this pamphlet). Similarly, a determination⁷¹ would have to be made as to the tax treatment of used property⁷¹ and casual sales.

Finally, the adoption of a retail sales tax raises additional considerations. First, a retail sales tax generally is a visible tax. Of course, the Federal retail sales tax statute may mandate that retailers not disclose the amount of tax on their sales invoices. In addition, there is the possibility of State and local governments may view a Federal retail sales tax as an imposition on their traditional domain of consumption taxes. In any event, a determination must be made whether the Federal retail sales tax bases includes the amount of the applicable State and local taxes and *vice versa*.

⁷¹ See Part IV.E.1. for a discussion of the treatment of durable and used goods.

IV. ANALYSIS OF ISSUES

A. Equivalence of Different Types of Consumption Taxes

To understand the economic effects of a tax, one should first look at the base of the tax, that is, what goods, services, or activities are subject to the tax. Looking at the proposed replacements for the current income tax that were discussed in Part III, one sees that their tax bases are consumption, rather than income. The similarity of the tax base of the proposals may not be apparent at first glance, since they take different routes to tax that base. This section discusses how outwardly different forms of taxation such as credit-invoice VATs, retail sales taxes, the flat tax of Hall and Rabushka, and consumed income taxes can all be seen as variants of a tax on consumption. This assertion does not deny that particular proposals in Part III may grant certain exemptions from the tax base or may have special provisions that make them slightly different from competing proposals. Rather, it stresses that it is in the details that any differences lie; all the proposals fundamentally aim at taxing the same base.

Relationship between income and consumption bases

While the term "income" may suggest funds coming in to an individual (the "factor payments" view of income⁷²), the theoretical underpinning for the income tax relies on a "uses" definition of income. The Haig-Simons definition of income,⁷³ commonly used by economists, defines income for a period as the "total value of rights exercised in the market, together with the accumulation of wealth in that period," that is, the value of consumption plus the change in net wealth for the period. Since the change in net wealth for an individual is the amount of saving (or dissaving, if net wealth decreases) for the period, an equivalent way to restate an income base is that it is consumption plus net saving. The difference between income and consumption as the base of a tax is that a consumption base does not include changes in wealth (savings).

Point-of-sale consumption taxes

The retail sales tax is perhaps the easiest to see as a tax on a consumption base. If all final consumption (goods and services purchased for final use by households) is subject to the tax and no intermediate goods and services (those purchased by businesses and used to produce other goods and services) are subject to the tax, then a retail sales tax is tautologically a consumption tax. In practice, existing State sales taxes stray from this comprehensive consumption base by exempting certain goods and failing to tax many services provided to households.⁷⁴

⁷²David F. Bradford, *Untangling the Income Tax*, (Cambridge, Mass.: Harvard University Press), p. 15.

⁷³Robert M. Haig, "The Concept of Income: Economic and Legal Aspects" in Robert M. Haig, (ed.), *The Federal Income Tax*, (New York: Columbia University Press), 1921, and Simons, *Personal Income Taxation*, (Chicago: University of Chicago Press), 1938.

⁷⁴A more subtle divergence is that business purchases of intermediate goods, especially by small businesses, may be subjected to the retail sales tax. This point is noted in Charles E. McLure, Jr., "Economic, Administrative, and Political Factors in Choosing a General Consumption Tax," *National Tax Journal*, 46(3), September 1993, pp. 345-58.

A broad-based, credit-invoice VAT achieves the same end as a retail sales tax even though it appears to be collecting tax at many stages of production rather than only at the time of final sale to a household.⁷⁵ From a prospective of the tax system as a whole, any time a sale is made from one business to another, the inclusion of the sale proceeds into the seller's tax base is offset by a deduction from the purchaser's base for the cost of the input. For a business-to-business sale, there is no net tax collected (although there may be payments going between businesses and the government). It is only at the time a sale is made to a non-business purchaser (i.e., a household) that a net tax is collected, because the inclusion of the sale proceeds is not offset by another business's deduction. But that result is identical to the retail sales tax: tax is collected only at the time of a final sale to a household. The same argument applies to a broad-based, subtraction-method VAT: net tax is collected only at the time of a final sale to a household.⁷⁶

Individual consumption taxes

Instead of measuring consumption by households at the point of sale, one could impose a consumption tax through annual returns of individuals' finances. This individualized approach may be useful if one were attempting to increase the progressivity of the consumption tax through the provision of standard deductions and personal exemptions.⁷⁷

Cash-flow approach

A way to measure consumption that would operate on annual returns would calculate a cash-flow base based on the fact that consumption equals income minus saving. A cash-flow base includes income from all sources and allows deductions for saving, resulting in only consumption being subject to tax. This cash-flow treatment is used in the individual portion of the Nunn-Domenici proposal. Such an approach is similar to the treatment of deductible IRAs under present law. Taxpayers deduct contributions to qualified accounts in the year they make contributions, but upon withdrawal they include in income the entire amount withdrawn. A cash-flow consumption tax treats all saving as if it were done in a qualified account. Loan proceeds are included in the tax base and a deduction is allowed for payments of both interest and loan principal.

The effect of cash-flow treatment is that the taxpayer receives a tax-free return on his savings assuming the tax rate is the same at the time of deduction and withdrawal. The following example illustrates how the cash-flow approach (initial deduction plus inclusion of all proceeds) results in the exemption from tax of the return to saving. Assume that the marginal tax rate is 20 percent and the taxpayer saves \$1,000 of his \$25,000 income in a savings account. The \$1,000 of savings gives the taxpayer a \$1,000 deduction and thereby reduces the taxpayer's tax liability by \$200 (20 percent of \$1,000). Assume that the taxpayer withdraws the savings (plus in-

⁷⁵ See Part III.A.2. for a more detailed discussion of the operation of a credit-invoice method VAT.

⁷⁶ See Part III.A.2. for a more detailed discussion of the operation of a subtraction-method VAT.

⁷⁷ See Part IV.E.4. for a discussion of some of these issues.

terest) one year later. If the account yielded a five percent rate of return, the taxpayer withdraws \$1,050. The withdrawal is included in the tax base and is taxed at the 20-percent rate, for an extra tax liability of \$210, leaving the taxpayer with net proceeds of \$840. Notice that if the taxpayer had initially paid the tax of \$200 (tax on the \$1,000 deposited in the savings account if saving were not deductible) and invested the remaining \$800 at five percent, he also would have had net proceeds of \$840 if interest income were not subject to tax. The combination of a deduction for saving and inclusion of all proceeds in the base upon withdrawal from the qualified savings account has the same result as exempting from tax the return on saving.⁷⁸

Tax prepayment approach

Another way to implement a consumption tax is to include in the base only earned income. This "tax prepayment" approach⁷⁹ treats all savings as coming from after-tax dollars. Taxpayers claim no deduction for savings, but their returns to saving, whether in the form of interest, dividends, rents, royalties, or capital gains, are excluded from the base of the tax and thus are received tax-free. In terms of the previous example, a taxpayer initially pays tax of \$200 on the \$1,000 he sets aside from current consumption. When he withdraws the \$840 in the following year (the \$800 he was able to put in the account plus a five-percent return), none of that is included in the tax base. This tax prepayment approach is generally used in the individual portion of the flat tax proposals of Hall and Rabushka, H.R. 4585, and S. 488, in which the individual portion of the tax includes only wage and salary income plus pensions⁸⁰ in the tax base.

Lifetime correspondence of consumption taxes and wage taxes

The equivalence of the cash-flow and prepayment approaches suggests a more general relationship between consumption taxes and taxes on labor income ("wage taxes"). Although wage taxes are not consumption taxes per se, they are often discussed in the context of consumption taxes because under certain conditions the two taxes are economically equivalent. Because economists stress the equivalence of these two taxes, it is important to understand the conditions under which equivalence holds.

Under a consumption tax (of either the point-of-sale type or the cash-flow individual type), all income is subject to tax except amounts equal to increases in net wealth (i.e., saving). Under a wage tax (which is similar to the tax prepayment approach to a consumption tax), labor income (but not capital income) is subject

⁷⁸ From the government's point of view, the cash-flow approach makes it a partner in any saving done by the individual. The government forgoes the \$200 of tax at the time the saving is done and collects a tax of \$210 (equal to \$200 plus five-percent interest) at the time the proceeds of saving are withdrawn. The \$200 deduction for saving could be viewed as the government making a contribution to the purchase of the asset that is the vehicle for the individual's saving. The size of the government share is equal to the marginal tax rate, in this example, 20 percent.

⁷⁹ It is sometimes described as a "yield exemption" approach.

⁸⁰ The treatment of pensions in these proposals differs from the tax prepayment approach. Pensions follow the principles of the cash-flow approach to a consumption base: the contributions to the pension during the individual's working years are excluded from the tax base and the pension payouts are included in the base when received.

to tax. It is also true that under a wage tax increases in net saving are exempt from tax. The key to the equivalence of the two taxes is the equivalent treatment of increases in net wealth.

Increases in net wealth (except for gifts and inheritances) can arise only from either of two sources: savings out of capital income (sometimes known as "inside build-up") or savings out of labor income. The first type of increase in net wealth is exempt both under a consumption tax, because it is not consumed, and under a wage tax, because it is not earned by the performance of labor services. The second type of increase in net wealth, savings from wages, is taxed under a wage tax at the time of the act of saving (because the savings are made from after-tax wages), but it is exempt from tax when it is withdrawn to pay for consumption. Under a consumption tax, savings from wages is not taxed at the time of the act of saving (because those amounts are not devoted to current consumption, but to savings), but it is taxed when it is withdrawn to pay for consumption. With a tax rate that is constant over the individual's lifetime, the tax treatment of saving from capital income is exactly the same under consumption and wage taxation, and the tax treatment of saving from labor income is equal in present value under consumption and wage taxation. Therefore, from a lifetime perspective, a young person who neither receives nor grants bequests and who has yet to undertake any savings would be subject to the same economic burden under either a consumption or a wage tax.

For an example of this equivalence, suppose that all individuals live for two periods, earning wages of \$10,000 in the first period and \$11,000 in the second period.⁸¹ Assume that the real interest rate is 10 percent and that the individuals may borrow or lend at this rate. This interest rate reflects the market price of deferring consumption from the first period to the second. That is, someone who chooses to give up \$100 worth of consumption in the first period would be compensated by receiving \$110 worth of consumption in the second period. The present value of the lifetime resources of an individual is \$20,000. No individual can consume more than \$20,000 (in present-value terms) over the two periods. If a 20-percent wage tax is levied, the individuals' net after-tax wages fall to \$8,000 and \$8,800 in the two periods, for a present value of \$16,000.⁸² The wage tax is equivalent to a 20-percent reduction $((20,000 - 16,000) / 20,000)$ in the lifetime resources available to the individual.

A proportional tax on consumption at a rate of 25 percent would be equivalent to the 20-percent wage tax.⁸³ To understand why, note that a 25-percent consumption tax means that for each \$100 that the individual is willing to spend on consumption goods, only \$80 worth of consumption goods can be purchased. The other \$20

⁸¹ These amounts are expressed in real dollars (i.e., adjusted for inflation).

⁸² The interest rate remains at 10 percent, as interest is untaxed under a wage tax.

⁸³ The distinction between these two tax rates is that the 25-percent consumption tax is stated on a tax-exclusive basis. That is, the tax is stated as a percentage of after-tax consumption. The rates of retail sales taxes are generally stated on a tax-exclusive basis. The 20-percent wage tax is stated on a "tax-inclusive basis." If the consumption tax were stated on a tax-inclusive basis, it would also be 20 percent; that is, the tax would be 20 percent of the amount spent on consumption *inclusive of the tax*. The rates of credit-invoice VATs are often stated on a tax-inclusive basis.

The tax-exclusive rate = $(\text{tax-inclusive rate} \times (1 - \text{tax-inclusive rate}))$ for two equivalent taxes.

(25 percent of \$80) is needed to pay the consumption tax. Thus a present value of lifetime resources equal to \$20,000 will only be able to purchase a present value of \$16,000 worth of consumption goods. But this is the same amount that could be purchased under the 20-percent wage tax. Therefore, the wage tax and the consumption tax are equivalent: they result in the same reduction in the present value of resources available for consumption.

With either tax, the price of shifting consumption between the two periods remains the same, so the individuals' choices about consumption and saving in the two periods are unchanged. Under the wage tax, if an individual saves an additional \$100 in period 1, his tax liability is unchanged, and the proceeds of his saving will yield \$110 from which to consume in period 2. Under the consumption tax, if an individual saves an additional \$100 in period 1, his tax liability in that period falls by \$25, so he can invest \$125, yielding him a return of \$137.50, which is just enough to purchase \$110 of consumption and pay the tax thereon in period 2.

It is important in the above example that the rate of the consumption tax remains the same across the two periods. For example, taxing consumption in future years at a higher rate would reduce the return to savings. Taxing future consumption at a lower rate would subsidize savings.

The equivalence example given above looked at the consumption tax and wage tax in a steady state, with no sources of wealth in existence that preceded the introduction of either tax. In the long transition period to a consumption tax, however, there is a substantial difference between wage taxation and consumption taxation for those with existing savings.⁸⁴ Because of the eventual taxation of these savings under a consumption tax as compared to their non-taxation under a wage tax, a consumption tax potentially would be more progressive than a wage tax. Although consumption taxes and wage taxes are considered to be economically equivalent in the long run, differences in their incidence—especially their intergenerational incidence—can be substantial. Consumption taxes can impose a burden on existing wealth, while wage taxes do not.

Another way to express a consumption tax's implicit levy on existing wealth is that a broad-based consumption tax is equivalent to a tax on wages plus a tax on income from existing capital (but exempting income from new investment). Since, in competitive markets, the real purchasing power of existing capital assets is equal to their (expected) future stream of income, taxing the existing capital is equivalent to taxing the income generated from that capital. This establishes the equivalence between a broad-based consumption tax and a tax on wages and the income generated by "old capital" (i.e., any capital existing at the time of the introduction of the tax). Notice that under the tax on wages and income from existing capital, the returns to new investment are not taxed. Similarly, by taxing consumption at different times uniformly, a broad-based consumption tax effectively exempts the returns to

⁸⁴ One aspect of this taxation of existing savings will be considered in Part IV.C.1. under transition issues.

savings from the tax base. In a closed economy, savings and investment are equal, confirming the equivalence of the taxes.⁸⁵

B. Integration of Business and Individual Taxes

It would be possible to enact an individual consumption tax of the cash-flow or tax prepayment type as a stand-alone tax without making changes to the taxation of businesses.⁸⁶ But many of the consumption tax proposals described in Part III, including the Hall-Rabushka proposal, H.R. 4585, and S. 488, do more than just change the rates and the base of the individual income tax. These proposals also integrate business taxation and individual taxation through the application of a consumption tax on all businesses at the same marginal rate as that applied to individuals.⁸⁷ Under present law, partnerships, subchapter S corporations, and sole proprietorships are already integrated into the individual income tax because of their passthrough treatment. For businesses organized under subchapter C, however, a separate, generally income-based, tax applies in addition to taxation at the individual level of the returns from the business.

What makes a given business tax a consumption tax is its definition of the tax base according to what economists call cash-flow accounting principles. Under cash-flow accounting, businesses take immediate deductions for all business purchases, including capital assets and additions to inventory. By contrast, income taxes use accrual accounting principles to measure the base.⁸⁸ Cash-flow accounting principles treat business activity similar to the cash-flow approach to an individual consumption-based tax: savings is deducted from the base and returns to savings are included upon withdrawal.⁸⁹ In the business context, expenses in the current period that yield revenues in future periods are savings; those future revenues are the return to savings.

The differences between the cash-flow accounting principles and accrual accounting principles can be seen in the treatment of inventories and durable goods purchases. For example, if a pencil manufacturer produces pencils in a particular year that it does not sell in that year, under an income base the cost of producing the unsold pencils is capitalized and a deduction for the capitalized cost is not allowed until the pencils are sold. Under cash-flow accounting, the production costs of unsold pencils are deducted in the year

⁸⁵ In an open economy, foreign holders of United States assets will be hurt by a tax on existing capital, but not by a consumption tax that increases the general domestic price level.

⁸⁶ Businesses would be treated as savings vehicles from the individual's standpoint. Amounts invested in a business would be deductible under a cash-flow approach and not deductible under a tax prepayment approach. Returns paid from the business to the individual would be included in a cash-flow base and exempt from a tax prepayment base. Sole proprietorships might be difficult to handle in this manner, however, since the lines between the individual and the business may be blurry. For example, the individual consumption tax discussed by the Treasury Department in *Blueprints for Basic Tax Reform* contemplated integrating sole proprietorships into the individual consumption tax using a cash-flow approach. No integration of corporate businesses was contemplated. Department of the Treasury, *Blueprints for Basic Tax Reform*, 1977, pp. 119-22, 130-34.

⁸⁷ The Nunn-Domenici proposal also changes business taxation, but it can be described as a combination of two different consumption taxes: an individual cash-flow consumption tax at graduated rates plus a single-rate, subtraction-method VAT.

⁸⁸ Even if the taxpayer is allowed to use the cash receipts and disbursements method of accounting under the Code, the determination of depreciation still rests on a notion that accrual principles define the base.

⁸⁹ The business tax analogue of the tax prepayment approach to an individual consumption-based tax would result in no business-level tax.

of production, not in the year of sale. The addition to inventory is a form of saving and a full deduction is allowed for it from the base of a cash-flow, consumption-based tax.

Similarly, if the pencil manufacturer purchases a new machine to attach erasers that has a useful life longer than one year, under an income base only the value of the machine that is used up during that year is subtracted from the value of the pencil manufacturer's output. The remainder of the value of the machine is deducted in future years.⁹⁰ Under accrual accounting, the net income during each year of the machine's useful life is the value of the output it produces minus the decline in the value of the machine minus the value of other inputs used to produce the pencils. Under cash-flow accounting, by contrast, the taxpayer deducts the entire purchase price of the machine from the annual output of the business in the year the machine is purchased. The purchase of a durable good is a form of savings and a full deduction is allowed for it from the base of a cash-flow, consumption-based tax.

In general, consumption-based taxes allow the immediate deduction ("expensing") of the cost of capital purchases. Under an income base, however, businesses are allowed deductions each year for only an allocable portion of the cost of capital purchases. If the deduction allowed matches the decline in the value of the capital good, then the deduction is called economic depreciation. To the extent that depreciation deductions allowed under present law exceed economic depreciation, the current corporate income tax moves in the direction of a consumption-based tax.⁹¹

To this point, the description of the cash-flow business tax has not specified what cash flows are considered. There are two alternatives, sometimes labelled as "R" and "R+F".⁹² The R alternative accounts only for cash flows based on real (non-financial) activity. Sales of goods and services are included in the base and purchases of inputs are subtracted from the base. Proceeds from a bank loan or a sale of stock are not included in the base and outflows such as loan repayments and payments of interest and dividends are not subtracted from the base. The R+F alternative accounts for cash flows based on both real activity and financial activity (except for transactions with the equity holders). In addition to sales of goods and services, loan proceeds are included in the base. Purchases of inputs plus loan repayments and payments of interest are subtracted from the base. Stock sale proceeds and dividends are ignored.

The Hall-Rabushka-type taxes use an R approach to defining the cash-flow base for businesses, which leads to a second distinction

⁹⁰ The amount of the machine that is used up in a given year is the decline in the value of the machine over the course of that year. Depreciation rules are generally used as a means to reflect this decline in value over the life of an asset.

⁹¹ Under Code section 179, taxpayers other than estates, trusts or certain noncorporate lessors may elect to expense up to \$17,500 (\$8,750 for married individuals filing separate returns) of qualifying capital property. The \$17,500 limit is reduced (but not below zero) by the amount by which the cost of such property placed in service during the taxable year exceeds \$200,000. In addition, the depreciation allowance provided by Code section 168 generally exceed economic depreciation.

⁹² This nomenclature was introduced by the Meade Committee in the study published by the Institute for Fiscal Studies, *The Structure and Reform of Direct Taxation*, (London: George Allen and Unwin), 1978. "R" stands for "real," while "F" stands for "financial."

between them and the current income-based business tax.⁹³ That is the treatment of interest expense, which is deductible under the current income-based tax as a cost of producing income, but would not be deductible under an R base. By contrast, under an R+F base, interest would continue to be deductible and principal repayments would become deductible, while loan proceeds would become includible in the base.

Under either cash-flow base, a consumption-based flat tax on businesses results in an expected tax collection of zero on the returns to additional units of capital. In a competitive market, the price of each additional capital good would be the expected present value of the output produced over the lifetime of the capital good. The business deducts that price in the year of purchase. If we assume that future returns from the capital good are equal to those expected by the taxpayer at the time of purchase, then the returns the business receives from using each additional capital good increase its tax base in the future, but only by as much in present value as the amount expensed at the time of purchase. Thus, similar to the treatment under the individual tax for deductible IRA contributions, the expensing of the cost of a capital good is equivalent to exempting from tax the expected returns generated by such good. Any net collections (in present value terms) of the cash-flow tax arise from returns in excess of those expected at the time of the purchase of an additional capital good or from inframarginal units of capital.⁹⁴

C. Criteria for Analysis of Tax Systems

1. In general

Analysts generally judge tax systems in terms of how well the tax system answers four different questions.

- First, does the tax system promote or hinder economic efficiency. That is, to what extent does the tax system distort taxpayer behavior? Does the tax system create a bias against the domestic production of goods and services? To what extent does it promote economic growth?
- Second, is the tax system fair? Does the tax system treat similarly situated individuals similarly? Does the tax system account for individuals' different capacities to bear the burden of taxation?
- Third, is the tax system simple? Is it costly for taxpayers to determine their tax liability and file their taxes?
- Fourth, can the tax system be easily administered by the government and can it induce compliance by all individuals? Is enforcement costly? Can some individuals successfully avoid their legal liabilities?

⁹³The deductibility of interest is not required in an income-based business tax. The Comprehensive Business Income Tax proposed by the Treasury Department was an income-based tax that would have denied businesses a deduction for interest. Department of the Treasury, *Integration of the Individual and Corporate Tax Systems*, January 1992.

⁹⁴Inframarginal units of capital are those for which the business expects a return in excess of the return that it could make on the next-best use of the funds. For such units of capital, the present value of the expected returns would exceed the cost of the unit of capital. If the actual returns match the expected returns, there will be a positive present value of tax collected on those returns.

The design of a tax system involves tradeoffs between these different goals. Measures designed to ensure compliance may increase the complexity of taxation for individual filers. Measures designed to promote simplicity may create distortions in individual choice of investments. Measures designed to promote growth may alter the distribution of the tax burden.

The material below discusses issues in efficiency, equity, simplicity, administration, and compliance that arise in consideration of replacement of the current U.S. tax system with the consumption-based tax systems described in Part III above.

2. Efficiency

Overview

Any tax imposed on economic decisions of taxpayers, be it on the decision to work, the decision to save, or the decision to consume, will create nonneutralities and distort taxpayer behavior. A tax system that taxes different individuals or different sources of income or consumption at different tax rates is not neutral between individuals or between sources of income, or types of consumption. Such nonneutralities can distort taxpayer behavior. Such nonneutralities cause taxpayers to make decisions that result in an inefficient use of their own and the economy's resources. Such distortions can reduce taxpayer welfare and diminish the performance of the economy. In general, the higher the marginal tax rates, the greater the reductions in taxpayer welfare and economic performance. In addition, nonneutralities may induce taxpayers to engage in activities that, while they offer a positive private return, produce no net return to the economy. One way to characterize nonneutralities is to classify them as "intratemporal" (nonneutralities that arise within the current year) or "intertemporal" (nonneutralities that arise across different years).

Economists observe that income taxes are intertemporally nonneutral. By taxing both wage income and any return on after-tax wages saved, income taxes increase the cost of future consumption compared to present consumption. This may create a bias against saving. Aside from the distortion of consumer behavior, a bias against saving may inhibit economic growth because saving is necessary to finance investment in productivity enhancing training, equipment, and research. The saving rate of the United States and the growth rate of the United States have fallen from levels that prevailed 25 years ago and are low in comparison to that of other developed countries.

Some advocates of consumption taxation argue that consumption taxes enhance a country's ability to export goods and services. They argue that current U.S. taxes create a bias against exports. Many economists argue that the substitution of a consumption-based tax for an income tax is unlikely to change U.S. demand for imports or increase the sale of domestically manufactured goods abroad.

Intratemporal nonneutrality

The present Federal income tax imposes different tax rates on different individuals. Taxing different individuals at different marginal tax rates creates opportunities for bracket arbitrage and cli-

entente effects. For example, if a taxpayer's receipts and expenses may be realized with some discretion (as is the case with taxpayers using the cash receipts and disbursements method of accounting), it is advantageous to recognize income when his marginal tax rate would otherwise be low and pay expenses when his marginal tax rate would otherwise be high. Such bracket arbitrage is profitable for the taxpayer, but may require the use of his time or resources from which the economy as a whole receives no benefit. Also, the delay or acceleration of economic activity merely to affect a taxpayer's tax liability may create inefficiencies in the market. A single marginal tax rate, as in a Hall-Rabushka-type flat tax, generally reduces the potential for private profit from bracket arbitrage and may free the taxpayer's time and resources for other endeavors. Similarly a VAT or retail sales tax would eliminate bracket arbitrage both by their single rate structure and by virtue of not being levied directly or individually. Under a tax system with increasing marginal tax rates on consumption such as the USA Tax of S. 722, taxpayers would benefit by devoting effort to avoiding bunching large purchases in one year.

Clientele effects represent a different sort of bracket arbitrage. With different taxpayers facing different tax rates it may be advantageous for one group of taxpayers, a "clientele," to hold one type of asset and another group of taxpayers to hold another type of asset. For example, because interest is deductible it is cheaper for a high-tax bracket taxpayer to borrow than for a low-tax bracket taxpayer.⁹⁵ Thus, high-tax bracket taxpayers might be more likely to borrow, and to borrow from low- or zero-bracket taxpayers. This nonneutrality could distort credit markets by effectively charging different interest rates to different taxpayers, depending upon a factor that has nothing to do with the taxpayer's creditworthiness.

Tax clienteles also may result in reduced tax collections. If reduced tax collections lead to higher overall tax rates, all existing nonneutralities may be magnified. Under the present income tax, interest income is taxable and corporations may deduct interest expense. If all taxpayers faced the same tax rate, the aggregate tax collected from interest income recognized from corporate interest payments would be offset by corporate interest deductions.⁹⁶ However, if taxpayers in tax rate brackets lower than that of corporations hold the debt, the government on net collects less in tax from interest income than it forgoes in interest deductions. Having only one marginal tax rate would mitigate these clientele effects. However, to the extent that some taxpayers remain not subject to tax, potential clientele effects may persist.

The present Federal income tax also imposes different effective tax rates on different sources of income. For example, income from investments in corporate equity generally is subject to a corporate-level tax when earned and to individual-level tax when the income is distributed to individuals. Interest from certain State and local securities is exempt from tax. Such nonneutralities may distort in-

⁹⁵The after-tax interest cost when the interest rate is r is $r(1-t)$, where t is the taxpayer's marginal tax rate. The greater the value of t , the lower the after-tax interest cost.

⁹⁶This discussion ignores certain other provisions of the income tax. For example, denial of net operating losses in excess of other income and the denial of a portion of the interest paid on certain high-yield debt obligations may limit the ability of a corporation to deduct interest expense in the current year.

vestor decisions, thereby reducing the efficiency of the capital market in allocating capital to its most highly valued uses. A premise of consumption-based taxes is to avoid such distortion of investment decisions by effectively exempting investment income from direct taxation.

Similarly, certain forms of employee compensation, such as employer-provided health benefits, are not taxed. Some economists suggest that the exclusion of certain health benefits from taxable employee compensation leads employees to consume more health care and less of other goods than they otherwise would.⁹⁷ Such nonneutralities can arise under consumption-based taxes if certain consumption goods are exempt from tax, or taxed at lower rates, than are other goods. Exclusion of health care services and health insurance from a consumption tax base also may lead individuals to consume more of these services than they otherwise would. Taxpayers also may arrange their affairs to increase tax-preferred sources of income or consumption, leading to an erosion of the tax base. For example, employees might negotiate for a larger proportion of their income to be paid in the form of nontaxed fringe benefits. Erosion of the tax base could necessitate higher rates of tax and higher rates of tax exacerbate existing economic distortions. In addition to exclusions of particular sources of income or types of consumption, a consumption base may shrink if taxpayers can arrange their affairs to take advantage of general exemption amounts or lower rates of tax. Under a Hall-Rabushka-type flat tax or a cash-flow individual consumption tax, it can be advantageous to shift wages (Hall-Rabushka) or consumption (cash-flow) to taxpayers who have not fully used their personal exemption or who are in a lower tax bracket.

A consumption-based tax would not necessarily eliminate all such distortions. As the preceding discussion suggests, distortions arise both from the breadth of the tax base and the rate of tax applied to different parts of the tax base. Providing one rate of tax does not eliminate distortions to the extent that some items remain outside the tax base. As taxpayers' leisure time always is untaxed, higher tax rates under either an income-based tax or a consumption-based tax could distort taxpayers' choices between work and leisure.

Intertemporal nonneutrality

One criticism of any income tax is that it is not neutral between present and future consumption. If a taxpayer earns wage income today and uses his wage income to consume today, the tax he pays relative to that consumption is equal to the tax on his wages. If the taxpayer earns wage income today and saves it to consume tomorrow, the tax he pays relative to that future consumption is equal to the tax on his wage income plus the tax owed on any interest earned by his saving. The total tax is greater if the consumption

⁹⁷ See the discussion in Joint Committee on Taxation, *Description and Analysis of Title VII of H.R. 3600, S. 1757, and S. 1775 (Health Security Act) (JCS-20-93)*, December 20, 1993, pp. 49-56.

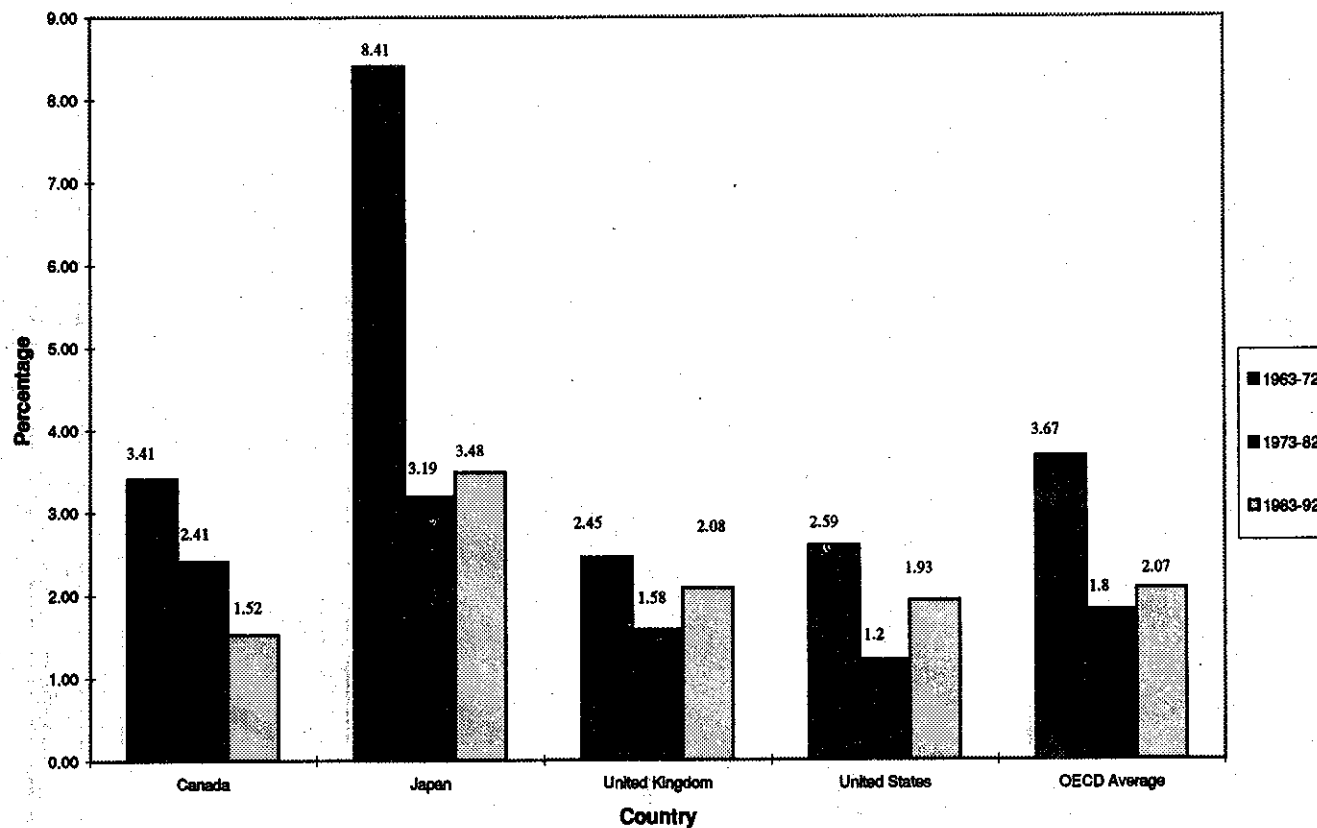
is deferred.⁹⁸ The potential distortion in favor of present, rather than future, consumption may be important because it may give the taxpayer a disincentive to save, and saving is necessary for economic growth.

Investment and economic growth.—When an economy's rate of net investment (gross investment less depreciation) increases, the economy's stock of capital increases. A larger capital stock permits greater production of goods and services using a fixed amount of labor. The larger a country's capital stock, the more productive its workers and, generally, the higher its real wages and salaries. Thus, increases in investment tend to cause future increases in a nation's standard of living.

Figure 1 below shows that the rate of growth of per capita GDP in the United States has slowed from that which prevailed in the 1960s. Between 1963 and 1972, the growth rate of real per capita GDP averaged 2.6 percent in the United States, while for the period 1983 to 1992 the growth rate of real per capita GDP averaged 1.9 percent. Both of these figures are below the average experience of the countries which comprise the Organisation for Economic Co-Operation and Development ("OECD"). The OECD countries averaged 3.7 percent per year for the period 1963 to 1972 and 2.1 percent per year for 1983 to 1992. As Figure 1 displays, the real growth rate of all the western economies generally has declined since the 1960s. The decline in the United States was less than the average.

⁹⁸To be more precise, the present value of the tax paid is greater if some of the wage income is saved and the earnings from that saving subsequently are taxed as income.

Figure 1. -- Per Capita Real GDP Average Annual Growth Rates Of Selected Countries



In the short run, increases in gross investment (investment in new capital as well as investment that is undertaken to replace depreciated or worn out capital) will increase the capital stock. As the capital stock increases, worker productivity increases and the economy will experience a higher rate of growth. The result is a higher level of per capita income. Because a larger capital stock results in a larger amount of depreciation, in the long run any given rate of investment will just offset the depreciation of the steady state capital stock. Thus, in the long run an increase in the level of investment increases a nation's standard of living, but may not increase a country's long run rate of growth. To sustain a higher growth rate, investment must continue to increase as a percentage of GDP.⁹⁹

Sources of investment funds.—Investment involves a tradeoff between consumption today and consumption tomorrow. Investment can either be financed by national saving or by foreign borrowing (saving by foreigners). A basic accounting identity of the national income and product accounts states that national investment must equal the sum of private saving, government saving, and net foreign borrowing.¹⁰⁰

If capital is not perfectly mobile between nations then the level of national saving can affect the level of investment. When the domestic saving rate is low, so is the domestic investment rate. Historically, there has been a strong positive correlation between a country's rate of investment and its rate of saving.¹⁰¹ Although this relationship has become weaker over time,¹⁰² it is still true that countries with high saving rates also generally have high investment rates.

Trends in national saving.—National saving is generally divided into private saving and public saving. Private saving is comprised of household or personal saving and business saving. Households save by not spending all of their disposable (i.e., after-tax) income. Businesses save by retaining some of their earnings. Public saving reflects the extent to which the Federal, State, and local governments run budget surpluses. Net business saving, personal saving, and public saving were all lower during the past several years than in any of the three previous decades. Table 6 below reports personal saving rates in the United States. While private saving remained positive, public saving was consistently negative during the 1980s as the result of Federal deficits. The magnitude of public dis-saving during the past 15 years generally was larger relative to

⁹⁹ A qualification exists to the previous analysis. It is possible that a higher investment level can lead to a higher growth rate even in the long run. Even if there is no growth in the level of investment, the investment to replace depreciated capital may still enhance economic growth because the new capital is more productive than the capital it replaced. The higher the level of investment, the more new capital is purchased each year, and thus the higher the rate at which new technologies may get adopted.

¹⁰⁰ The experience of the 1980s, when investment in the United States exceeded national saving, demonstrates how important net foreign borrowing has become. When demand for investment funds in the United States outstrips the supply of national savings, interest rates rise in response. Increases in interest rates attract foreign capital to the United States, and the excess of domestic investment over national saving is financed by foreigners' saving.

¹⁰¹ See, for instance, Martin Feldstein and Charles Horioka, "Domestic Saving and International Capital Flows," *Economic Journal*, vol. 90 (June 1980) pp. 314-29.

¹⁰² See Martin Feldstein and Phillippe Bacchetta, "National Saving and International Investment," in B. Douglas Bernheim and John B. Shoven (eds.), *National Saving and Economic Performance*, (Chicago: University of Chicago Press), 1991, pp. 201-220.

GDP than in earlier years. Net national saving declined steadily through most of the 1980s. See Figure 2.

Table 6.—Personal Saving as a Percentage of Disposable Personal Income, Selected Years, 1929-93

Year	Personal saving as a percentage of dis- posable personal income
1929	3.2
1939	2.6
1944	25.1
1949	3.9
1954	6.3
1959	6.3
1964	6.9
1969	6.5
1974	8.9
1975	8.7
1976	7.4
1977	6.3
1978	6.9
1979	7.0
1980	7.9
1981	8.8
1982	8.6
1983	6.8
1984	8.0
1985	6.4
1986	6.0
1987	4.3
1988	4.4
1989	4.0
1990	4.2
1991	4.8
1992	5.3
1993 ¹	4.0

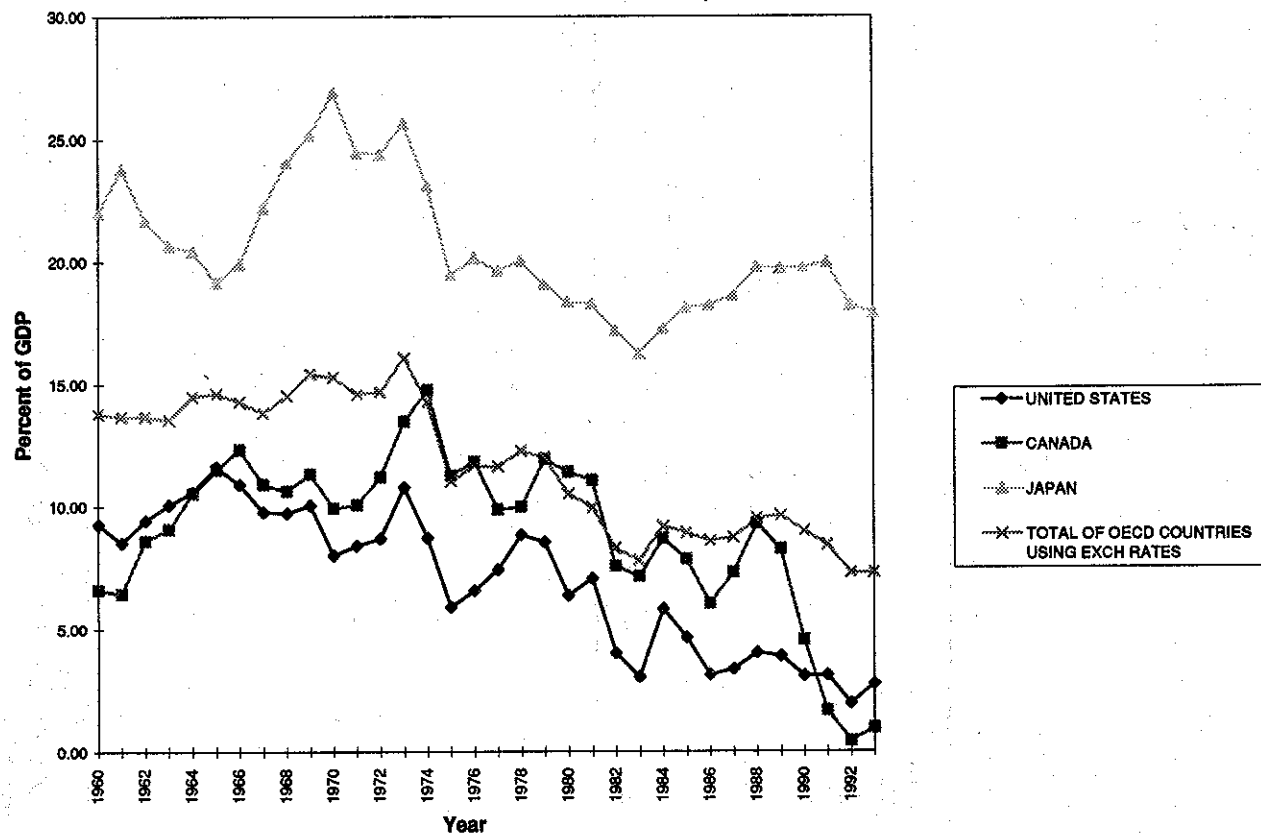
¹ Estimate.

Source: Department of Commerce, Bureau of Economic Analysis.

The United States' national saving rate is low when compared to that of other nations. Figure 2 displays the net national saving rates for Japan, Canada, the United States, and the average of the OECD countries for the period 1960 to 1993. As Figure 2 indicates, the net saving rate of the United States during the 1980s was below the average saving rate of OECD countries.¹⁰³ Generally, saving rates of all nations have declined from the rates of the late 1960s. The U.S. net saving rate for 1993 was 2.7 percent compared to the OECD average of 7.3 percent.

¹⁰³ While the source of the international comparisons draws on data from the OECD, which attempts to provide data on an internationally comparable basis, the data are not fully comparable. See, Andrew Dean, Martine Durand, John Fallon, and Peter Hoeller, "Saving Trends and Behavior in OECD Countries," OECD, Economics and Statistics Department Working Paper, No. 67, June 1989. The data underlying Figures 1 and 2 are drawn of national income and products account data as reported to the OECD. To compute the OECD average individual country data are converted to dollars annually at the average exchange rate that prevailed for that year.

Figure 2. Net National Savings Rates of the United States, Canada, Japan, and Average of OECD Countries, 1960-1993



Effect of tax policy on saving.—Economists disagree whether, in fact, an income tax does discourage saving. At issue is the extent to which taxpayers change their saving in response to the net, after-tax return to their saving. Some studies have argued that one should expect substantial increases in saving from increases in the net return.¹⁰⁴ Other studies have argued that large behavioral response to changes in the after-tax rate of return need not occur.¹⁰⁵ Empirical investigation of the responsiveness of personal saving to the taxation of investment earnings provides no conclusive results. Some find personal saving responds strongly to increases in the net return to saving,¹⁰⁶ while others find little or a negative response.¹⁰⁷

Effects of a VAT on international trade

Overview.—Because border tax adjustments provide rebates on exported goods and impose taxes on imported goods, destination-based VATs may appear to provide subsidies for exports and disincentives to imports. The flat tax of H.R. 4585, on the other hand, is an origin-based consumption-base tax. It would impose tax on all business activities that occur in the United States, regardless of where goods or services are sold. An origin-based consumption-based tax appears to penalize exports relative to imports. In fact, however, border tax adjustments provide neither incentives nor penalties for international trade. Similarly it is sometimes argued that the U.S. corporate income tax places U.S.-based corporations at a disadvantage when selling overseas and creates an advantage for foreign-based corporations that sell in the United States, and that substitution of a VAT or retail sales tax for the corporate income tax would encourage exports and discourage the purchase of imports. Economists generally argue that this outcome is unlikely.¹⁰⁸

A potential benefit of a consumption-based tax on international trade is the possibility that the replacement of the income tax with a consumption-based tax will increase savings by reducing the penalties on saving imposed by the income tax. The possible effects of consumption taxes on savings are discussed above. An increase in domestic saving would likely increase domestic capital formation and productivity, making U.S. products less expensive abroad. An increase in demand for U.S. products generally would lead to appreciation of the dollar, eliminating some or all of the price advantage.

Destination-based consumption taxes.—A consumption tax based on the destination principle imposes tax on imports and provides

¹⁰⁴ Lawrence H. Summers, "Capital Taxation and Accumulation in a Life Cycle Growth Model," *American Economic Review*, 71, September 1981.

¹⁰⁵ David A. Starrett, "Effects of Taxes on Saving," in Henry J. Aaron, Harvey Galper, and Joseph A. Pechman (eds.), *Uneasy Compromise: Problems of a Hybrid Income-Consumption Tax*, (Washington, D.C.: Brookings Institution), 1988.

¹⁰⁶ Michael Boskin, "Taxation, Saving, and the Rate of Interest," *Journal of Political Economy*, 86, April 1978.

¹⁰⁷ George von Furstenberg, "Saving," in Henry Aaron and Joseph Pechman (eds.), *How Taxes Affect Economic Behavior*, (Washington, D.C.: Brookings Institution), 1981.

¹⁰⁸ The ability to adjust taxes at the border may make a difference in the case when intermediate goods are traded. A retail sales tax that does not provide an adjustment at the border is equivalent to a tariff on the import of intermediate goods (of a subsidy to the production of intermediate goods for export). Gene M. Gossman, "Border Tax Adjustments: Do They Distort Trade?" *Journal of International Economics*, 10(1), February 1980, pp. 117-28.

tax rebates on exports. These import fees and export rebates are commonly referred to as border tax adjustments and are a fixture of most VAT systems currently in place. Such adjustments also generally would apply under a retail sales tax. They are also fully consistent with GATT rules as long as they do not discriminate against imports or provide over-rebates on exports. Because the tax on imports has the appearance of a protective tariff, and the rebate on exports has the appearance of an export subsidy, it is commonly believed that a consumption tax (based on the destination principle) would help the U.S. balance of trade. However, economists have long held that there is no direct effect of a consumption tax on the volume of exports or imports.¹⁰⁹ In fact, the imposition of a tax on imports—equal to that imposed on goods produced domestically—and a similar tax rebate on exports is intended to maintain a level playing field between domestic and foreign producers in their competition for business in both domestic and foreign markets.

To help understand why border tax adjustments do not distort or subsidize international trade, consider the following example. Suppose a certain good produced both overseas and domestically, such as wheat, sells at \$4 (per bushel). With the enactment of a broad-based U.S. VAT at a rate of 10 percent, the price of wheat in the U.S. would increase by 10 percent to \$4.40 (under the assumption that the tax is passed forward to consumers) for wheat produced domestically as well overseas since both are subject to the tax—the domestically produced wheat being subject to the normal VAT and the wheat produced overseas subject to the import tax at the same rate as the VAT. Thus, even though imports are subject to tax, U.S. buyers' choice between imported and domestically produced wheat is not altered.

Similarly, foreign consumers' choice between goods produced in the U.S. and goods produced in their own country is not altered even though U.S.-produced goods are provided VAT rebates when exported. Wheat produced outside of the U.S. and sold to foreign consumers remains at its world price of \$4.00 and wheat produced inside the U.S. remains at \$4.00 since no U.S. VAT is imposed on the exported wheat.

Origin-based consumption taxes.—From the preceding discussion it might seem that a consumption tax without border tax adjustments (an origin-principle consumption tax) such as a Hall-Rabushka-type flat tax could disadvantage domestic producers relative to foreign producers in overseas markets. However, border tax adjustments may not be the only mechanism operating to maintain neutrality. Other self-executing adjustments by the markets, such as reductions in wage rates or in the value of the domestic currency, could wholly offset any potentially detrimental trade effects of origin-based taxation on exported goods.

Continuing the above example, if the world price of wheat is \$4.00, the burden of the tax cannot be shifted forward to consumers in the form of higher prices. If the markets are competitive, the

¹⁰⁹ See, for example, Martin Feldstein and Paul Krugman, "International Trade Effects of Value-Added Taxation," in Assaf Razin and Joel Slemrod (eds.) *Taxation in the Global Economy*, Chicago: University of Chicago Press, 1990; and Charles E. McLure, *The Value-Added Tax: Key to Deficit Reduction?*, (Washington, D.C.: American Enterprise Institute), 1987.

seller cannot both reduce price and remain in business. However, labor may bear the burden of the tax through reduced wages. This allows the seller to remain in business with a price of \$4.00. Therefore, there is no effect on foreign trade. Alternatively, the domestic currency may depreciate so that although the *nominal* price has increased to \$4.40, the price paid for domestic wheat by foreign consumers in their currency is unchanged from its before-tax level.¹¹⁰

Substitution of a consumption-based tax for the corporation income tax.—It is sometimes argued that a VAT, a retail sales tax, or other consumption tax might boost the competitiveness of U.S. firms vis-a-vis imports or foreign-owned U.S. firms. In the case of imports, it might be argued that foreign firms enjoy access to U.S. markets but bear no U.S. tax because, under the source principle no U.S. income tax is imposed on imported goods. In the case of goods produced by foreign-owned U.S. firms importing near-finished goods from the foreign parent company, only a small amount of total income properly allocable to the sale of that product is subject to U.S. corporate income tax.¹¹¹ In either case, the foreign firm may pay little U.S. tax, while its U.S. competitor is fully subject to the corporate income tax. However, if the products sold in the United States by both foreign- and U.S.-owned firms were both subject to a destination-based consumption tax instead of a corporate income tax, both classes of firms would incur the same U.S. tax liability. Therefore, it is argued that the competitiveness of U.S.-owned firms would be enhanced by the imposition of a destination-based consumption tax, if the consumption tax replaced part or all of the corporate income tax.

Because of economic adjustments, either through changes in the price of taxed goods or through changes in the exchange rate, the above line of reasoning is generally incorrect. It is often assumed that consumption taxes are passed along to consumers in the form of higher prices, and it is assumed that corporate income taxes are borne by owners of capital.¹¹² In this case, the conclusion does not hold. Under these assumptions, although domestic and foreign producers may be subject to different corporate tax burdens, none of this is reflected in higher prices, and the relative attractiveness of goods produced by U.S.- and foreign-owned firms is not affected. On the other hand, consumption taxes would raise prices uniformly for the goods of both domestic- and foreign-owned firms, but the relative attractiveness of their goods would be unaffected. There-

¹¹⁰ See Martin Feldstein and Paul Krugman, "International Trade Effects of Value-Added Taxation," p. 270.

¹¹¹ In addition, possible problems in the administration of related-party transfer rules may further reduce the amount of U.S. tax imposed on foreign-owned U.S. corporations. For a discussion of these issues, see Joint Committee on Taxation, *Present Law and Certain Issues Relating to Transfer Pricing (Code Section 482)* (JCS-22-90), June 28, 1990.

¹¹² The burden of consumption taxes is widely assumed to be passed along to consumers. However, this assumption is not beyond reasonable dispute. See the discussion in Part IV.C.3 and Part IV.D.1 below. There also is disagreement about the incidence of the corporation income tax. A large body of public finance literature has focused on the "Harberger model," which concludes that the corporation income tax is borne by all capital. However, the Harberger model assumes that savings is not responsive to changes in tax rates and that capital is not mobile across international borders. To the extent that these assumptions are not correct, the burden of the tax may be partially or totally borne by labor, in the form of lower wages. To the extent the corporation income tax would be borne by consumers, it generally would be expected to be borne by foreign as well as domestic consumers. In this circumstance, it would be unlikely that any benefit would be provided by replacing one tax (the corporation income tax, for example) the burden of which is borne by consumers with another tax (a VAT, for example) that is borne by consumers.

fore, under these assumptions, a consumption tax, as compared to a corporate income tax, does not directly improve the U.S. balance of trade by raising the price of goods of foreign-owned firms.

Even if the burden of the corporate income tax is not borne completely by owners of capital, the effects of the corporate income tax on international trade remain minimal. If the corporation tax increases prices instead of reducing profits, under a system of flexible exchange rates, an offsetting adjustment in the exchange is likely to occur and eliminate any disadvantage to exports from increased prices.

3. Tax equity

Standards of comparison

Discussion of the fairness of a tax cannot take place without a standard by which fairness can be judged. While most analysts rely on the notion of "ability to pay" or the taxpayer's capacity to bear taxes, there is no agreement regarding the appropriate standard by which to assess a taxpayer's ability to pay.

Annual income.—Many analysts have long advocated a comprehensive measure of income as a measure of ability to pay.¹¹³ Although income is commonly measured on an annual basis, it is recognized that there are significant shortcomings with using annual income as an indicator of ability to pay. First of all, an individual may be subject to wide swings in income from year to year. In this case, a "snapshot" of income in any one year would be a misleading indicator of ability to pay. An individual's income generally varies more from year to year than does that individual's consumption expenditures, as individuals save money for "a rainy day" when their income is high and dissave to finance consumption purchases when their income is low. Second, over the course of a lifetime, annual income will vary according to age, where income is low during school years, peaking toward the end of one's working years, and declining in retirement. Low annual income may incorrectly indicate a low ability-to-pay for college students or retirees, and probably should not be considered equal to the ability-to-pay at the peak of one's career.

Lifetime income.—Accordingly, many economists have argued that lifetime income (or some average of income over several years) is a better indicator of ability-to-pay.¹¹⁴

Over an individual's lifetime, consumption is roughly equal to income,¹¹⁵ but as noted above consumption is likely to be high relative to income in low-earning years and low relative to income in high-earning years. Therefore, if consumption tax liabilities are borne in proportion to consumption, a broad-based consumption tax appears regressive if compared to an annual measure of income

¹¹³ See, for example, Henry Simons, *Personal Income Taxation*, Chicago: University of Chicago Press, 1938; and Richard Goode, "The Superiority of the Income Tax," in Joseph Pechman (ed.), *What Should Be Taxed: Income or Consumption?* Washington, D.C.: Brookings Institution, 1980.

¹¹⁴ If individuals do not have easy access to well developed financial markets, the appropriateness of lifetime income as a measure of ability-to-pay should be qualified. For example, if an individual is credit-constrained, lifetime income may overestimate a low-income individual's ability to pay.

¹¹⁵ Lifetime income may exceed lifetime consumption (in present value) when an individual receives large bequests or gifts (and these receipts are not considered income). Lifetime income may be less than lifetime consumption (in present value) when an individual makes bequests or gifts (and these payments are not considered consumption).

and appears less regressive and perhaps even proportional when lifetime income is used as the measure of ability-to-pay.

It has been widely observed that annual consumption is much less variable than annual income, and that annual consumption is more likely to be a function of lifetime income than annual income.¹¹⁶ Based on this observation, some have even advocated annual consumption itself as a measure of ability to pay since it is a good proxy for average lifetime income.¹¹⁷ Others have advocated consumption itself not because it is a good proxy for income, but because it is a better measure than income of economic well-being. If a tax system is considered "fair" when two individuals with the same wealth at the beginning of their lives and the same abilities to earn wage income are taxed equally, then consumption is a better tax base than income. This is the case because (if an individual neither receives nor leaves bequests) the present value of lifetime consumption equals the present value of his lifetime earnings, while the present value of lifetime income will vary with the timing of savings. The present value of a consumption tax is then proportional to economic well-being but the present value of an income tax will vary for individuals with equal measures of economic well-being and, in fact, will increase with the rate of savings.¹¹⁸

Equal treatment of equals

The present income tax may effectively impose different total tax liabilities on taxpayers who otherwise have the same economic income if they have different sources of income or types of expenses. In addition to whatever economic distortions these nonneutralities might create, some view this outcome as unfair. The principle of a single-rate consumption tax is to apply the same rate of tax to all similarly situated individuals. However, it is sometimes difficult to determine when two individuals are similarly situated. For example, people disagree over whether two taxpayers are similarly situated if they have the same income but different medical expenses, or different work-related expenses, or different dietary expenses, or whether they rent or own their home. These are disagreements about the tax base. Any noncomprehensive tax base, whether under an income-based or consumption-based tax, potentially imposes different tax liabilities on any two taxpayers who some might consider to be similarly situated. So too, a comprehensive tax base might impose different tax liabilities on any two taxpayers who some might consider to be similarly situated, if, for example, one believes that medical expenses reduce the taxpayer's ability to pay.

Progressivity

When discussing tax rates, analysts distinguish "average tax rates" from "marginal tax rates." An average income tax rate is the taxpayer's total income tax liability divided by his total income. A marginal income tax rate is the rate of tax imposed on an addi-

¹¹⁶ See, for example, Milton Friedman, *A Theory of the Consumption Function*, Princeton, N.J.: Princeton University Press, 1957.

¹¹⁷ See James M. Poterba, "Is the Gasoline Tax Regressive?" in (David Bradford (ed.), *Tax Policy and the Economy*, vol. 5, (Cambridge: The MIT Press), 1991.

¹¹⁸ The Treasury Department discusses the relative merits of a consumption and income tax base in its 1977 tax reform study. See, Department of the Treasury, *Blueprints for Basic Tax Reform*, January 17, 1977, pp. 38-41.

tional, or marginal, dollar of income earned by the taxpayer. Statutory tax rates in the Code are marginal tax rates. A tax is "progressive" if the average tax rate rises as the tax base rises. The present Federal individual income tax is a progressive tax. A Hall-Rabuska-type flat tax also is progressive because it exempts some initial level of wage income from taxation. Similarly, a single- or multi-rate consumption tax can be progressive if it exempts an initial level of consumption. If a tax exempts an initial level of income or consumption from taxation, it does not require increasing marginal tax rates in order to be progressive.¹¹⁹ For example, if a flat income tax exempted the first \$20,000 of income from tax and imposed a marginal tax rate of 20 percent on all income over \$20,000, the average tax rate would rise from zero at an income of \$20,000, to 6.7 percent at an income of \$30,000, to 14.7 percent at an income of \$75,000, to 19.6 percent at an income of \$1 million.¹²⁰

The tax liability imposed under a flat tax can be represented by a straight line whose slope is the marginal tax rate. For each additional dollar of income¹²¹ earned, the taxpayer's tax liability increases at the marginal tax rate. The present-law income tax is better described by a curve. The taxpayer's tax liability first increases at the 15-percent marginal tax rate, then increases more steeply at the 28-percent marginal tax rate, and ultimately increases more steeply at the 39.6-percent marginal tax rate.¹²² Figure 3 illustrates this difference. The curving line labelled "Graduated Rates" in the figure is modelled on the present-law individual income tax. It assumes a joint filing status claiming four personal exemptions and the standard deduction (\$2,500 personal exemption and \$6,550 standard deduction for 1995). It assumes all income is wage income taxable at the present-law tax rates of 15, 28, 31, 36, and 39.6 percent. For simplicity, it ignores the earned income tax credit, other tax credits, and the phaseout of personal exemptions. The line labelled "Flat Rate" assumes that all wage income beyond a \$20,000 exemption is taxed at a flat marginal tax rate of 20 percent.

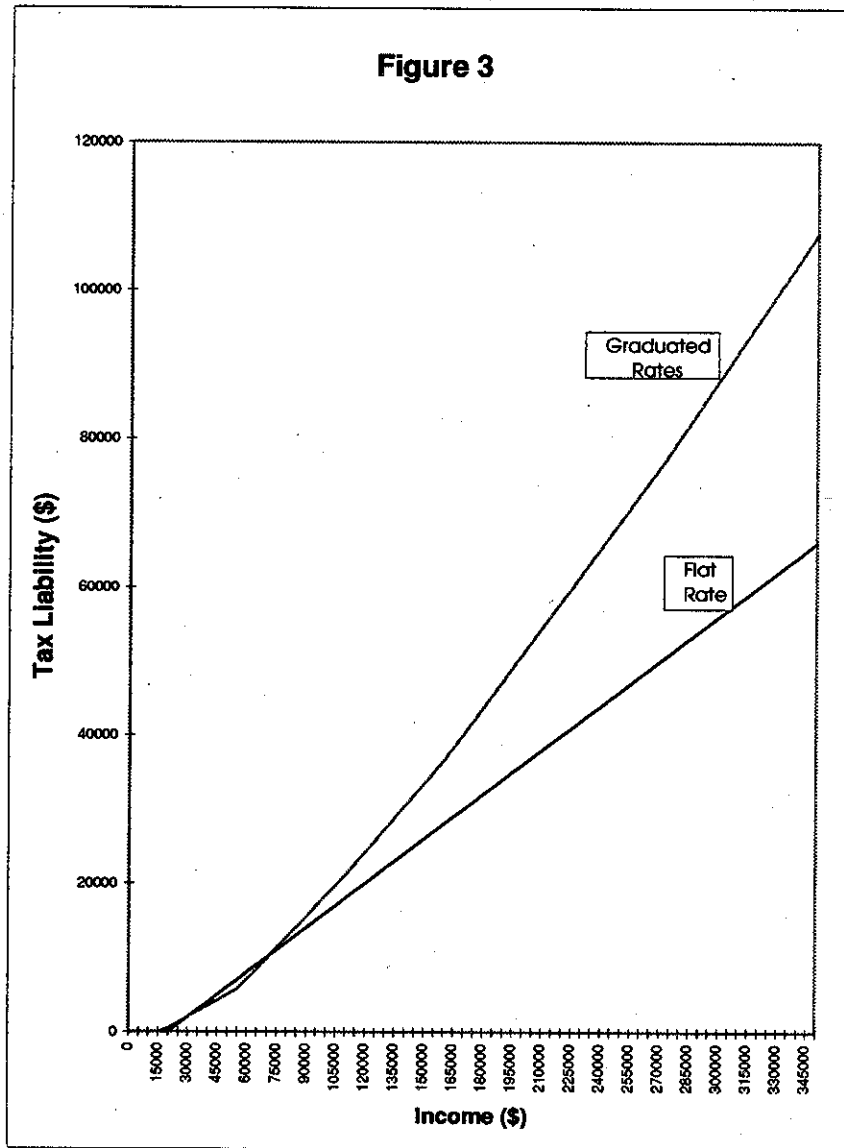
¹¹⁹ Mathematically, if the marginal tax rate is greater than the average tax rate, the average tax rate increases as income increases. A tax that exempts an initial level of income or consumption commences with an average tax rate of zero. Hence, any positive marginal tax rate will cause the average tax rate to increase as income increases.

¹²⁰ In general, the average tax rate under the hypothetical flat income tax described in the text would be zero for incomes of \$20,000 or less and $((.2 \times Y - 20,000) / Y)$, where Y is income, for incomes in excess of \$20,000. The average tax rate always increases as income (Y) increases.

¹²¹ The term "income" will be used here to describe the tax base, whether the tax is an income-base tax or a consumption-base tax.

¹²² This discussion ignores preferences for certain types of income under present law, such as income from realized gains.

Figure 3



The difference in the pattern of liability under a tax system with increasing marginal tax rates and a tax system with one marginal tax rate can thus be thought of in terms of how well a straight line approximates a curve. A straight line, of course, can never exactly match a curve. The flatter the curve, the more closely a straight line can approximate a curve. The more convex its curve, the less well a straight line serves as an approximation. In general, the substitution of a flat tax system (one marginal tax rate) would be expected to substantially alter the tax liabilities of many taxpayers compared to their liability under a tax system with increasing marginal rates.

The preceding discussion has implicitly assumed that the tax base is unchanged while the marginal tax rate structure is altered. The example in Figure 3 compares the taxation of a taxpayer with solely wage income. However, if the tax base is changed at the same time the rate structure is altered, it is not possible to make a general statement about how tax liability would change. For example, a flat tax might lower the marginal tax rate and total tax liability on higher-income taxpayers. If, however, the tax base were broadened to include interest from State and local bonds, and if higher-income taxpayers held substantial amounts of those bonds, then the tax liabilities of higher-income taxpayers might increase even as their marginal tax rate fell.

Figure 4 shows the difference in the pattern of tax payments that might occur under a multi-rate versus a single-rate consumption tax. While the figure graphs taxes against cash income, the hypothetical taxes are based on consumption. For purposes of this figure, families with different levels of income are assumed to consume different proportions of their income. The proportions of income consumed are based on actual U.S. experience as reported in the Consumer Expenditure Survey.¹²³ Thus, lower-income individuals are assumed to consume a higher proportion of their income than are higher-income individuals. The curving line labelled "Nunn-Domenici" in the figure is modelled after the multi-rate tax schedule and family living allowance for joint filers in years after 1999 as provided in S. 722. Marginal tax rates vary from eight percent to 40 percent. The line labelled "Retail Sales" uses the same consumption data and assumes that all consumption is subject to a 15-percent retail sales tax. Together, Figures 3 and 4, suggest that achieving a desired pattern of progressivity is not dependent upon an income base.

An important difference that Figures 3 and 4 highlight is that progressivity can be achieved by exempting an initial level of income on consumption. Such exemptions are not easily achieved if taxes are not imposed at the individual level. Exempting certain consumption items from the tax base, such as food, clothing, and housing, may have comparable effects, but as such exemptions would apply to individuals who have a low ability to pay taxes and to in-

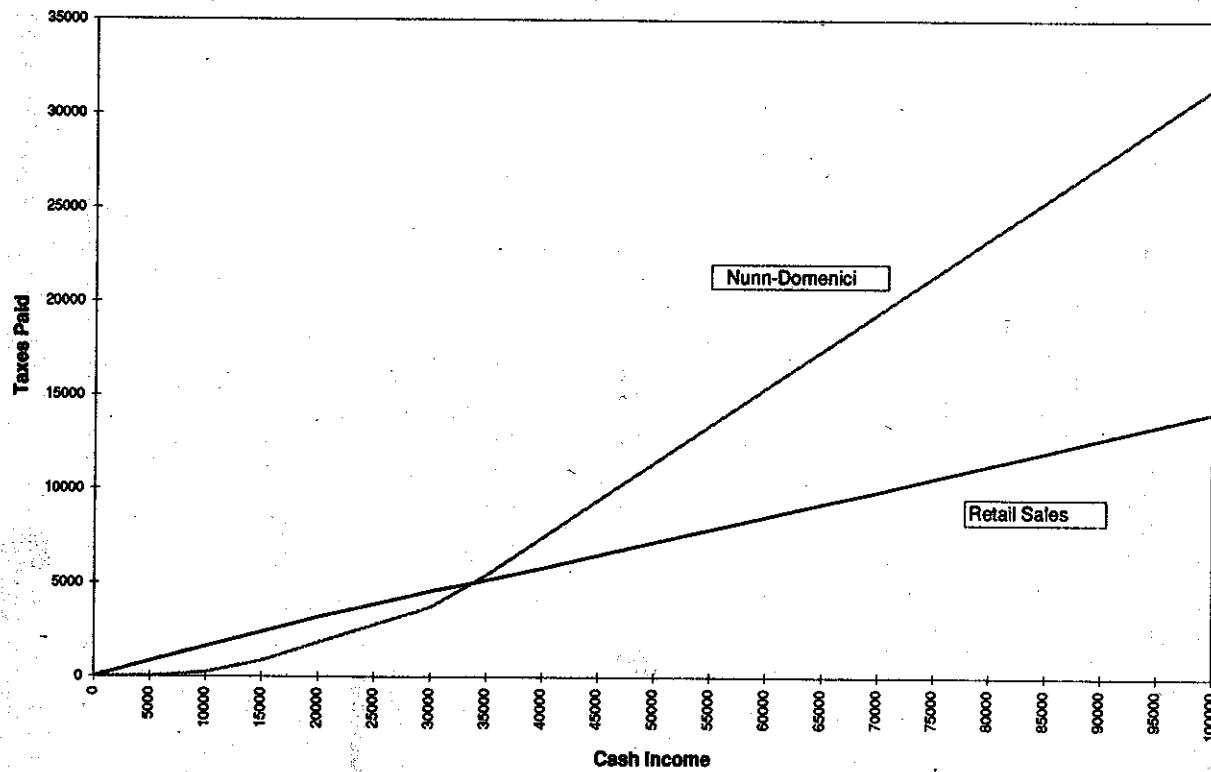
¹²³ The consumption proportions are based on John Sabelhaus's review of the Consumer Expenditure Survey. The consumption proportions used by the staff of the Joint Committee on Taxation in preparing Figure 4 are based on Sabelhaus's "net worth saving" methodology as reported in Table 2 of John Sabelhaus, "What Is The Distributional Burden of Taxing Consumption?" *National Tax Journal*, 46, September 1993, p. 336. The staff of the Joint Committee on Taxation linearly interpolates the saving rates for income levels between those reported by Sabelhaus.

dividuals who have a greater ability to pay taxes, such exemptions generally are costly to provide in terms of revenue lost for progressivity gained.¹²⁴ In addition to creating nonneutral taxation of different consumption goods, the greater revenue required may necessitate higher rates of tax which would exacerbate any economic distortions that exist under the tax. See Part IV.E.4 for a discussion of providing relief for poor individuals.

Neither figure should be interpreted to represent the total tax liabilities likely upon replacement of the current income tax system with a consumption-based tax system. The figures do not include business level taxes, either those of present law or of the proposals described in Part III.

¹²⁴ U.S. Department of Treasury, *Tax Reform for Fairness, Simplicity and Economic Growth*, Vol. 3, *Value-Added Tax*, November 1984.

Figure 4



Economic incidence of consumption-based taxation

Simple calculations of taxes paid may not show who truly benefits or who is harmed by fundamental tax restructuring. The burden of taxation often is not well represented by a tabulation of who pays the tax. For example, the statutory incidence of Federal alcoholic beverage excise taxes is on the producers of such beverages, but most analysts believe that consumers bear the burden of such taxes in the form of higher prices for alcoholic beverages. Assigning the collection of a new tax at the corporate level or at the individual level in a way to approximate the tax remitted by individuals and corporations under present law does not mean that burden of taxation has been distributed across taxpayers in the same manner as present law.

To determine the incidence of any tax, it is necessary to determine which individuals bear the burden of the tax and how this burden changes over time. A consumption tax can lead to increases in the general price level in the economy or to reductions in nominal wages and profit rates. For wage earners, the distinction is unimportant, because they will suffer the same reduction in buying power whether their nominal wage falls or the prices they face increase. In either case, their real wage falls. However, the distinction is important for individuals with income fixed in nominal dollars—those with government transfers and those receiving or paying interest. For example, individuals whose income consists only of non-indexed government transfers are burdened if prices rise, but not if wages fall. Whether a consumption tax leads to nominal wage and profit declines or to price increases will depend on the monetary policy of the Federal Reserve, and cannot be predicted on the basis of economic theory. Part IV.D.1, below, discusses further the economic effects that may occur if prices change or if wages change.¹²⁵

4. Simplicity, administration and compliance

One of the common complaints about the current income tax system is that it is extremely complex. The complexity leads to the use of resources in order to learn the rules of the tax and to prepare returns for the Government's collection of the tax. A purported benefit of replacing the current income tax with a consumption tax is that the latter would be simpler and fewer resources would be used in the collection of the same amount of revenue.

Individuals, businesses, and the government all use resources in the process of collecting the tax revenue. Expenditures by individuals and business have been estimated by researchers. Expenditures by the government show up in the staffing and budget requirements. For fiscal year 1994, the Internal Revenue Service had a budget of over \$7.3 billion dollars, with over 104,000 full-time equivalent employees.¹²⁶ During fiscal year 1994, the IRS processed 193.1 million primary returns and 8.7 million supplemental documents. The IRS also processed slightly over a billion informa-

¹²⁵ These issues are explored in greater detail in Joint Committee on Taxation, *Methodology and Issues in Measuring Changes in the Distribution of Tax Burdens* (JCS-7-93), June 14, 1993, pp. 51-60.

¹²⁶ Data in this paragraph are from the Appendix, *Budget of the United States Government, Fiscal Year 1996*, pp. 810-15.

tion returns in the course of its document-matching program. These information returns relate to wage, dividend, and interest receipts and are matched against individual income tax returns to identify income reporting discrepancies, unsubstantiated deductions, and nonfiling of returns. There were nearly 123 million income, estate, gift, and partnership returns filed in 1993. The IRS examined 1.3 million returns that year, for an audit rate of 1.08 percent.

The 1984 Treasury Report¹²⁷ estimated that it would require approximately 20,000 additional IRS employees to administer a credit-invoice method VAT in the United States. Since these employees would be in addition to the existing IRS staff, it is not clear from the report what the total staffing requirements would be if the VAT were used to replace the current income tax. Although the report assumed there would be only limited integration of the VAT with the income tax, some of the existing IRS employees would perhaps be required to deal with VAT-related functions (e.g., returns processing), so that the 20,000 additional staff would not represent the entire IRS workforce involved with VAT administration. (Although the Treasury Report recommended that the Customs Service administer a VAT with respect to imports, the report contained no estimate of the required number of employees or costs attributable to administration of a VAT by the Customs Service with respect to imports.) The economy has, of course, grown substantially since then, and the size of the IRS has also grown. In 1984, the IRS had 87,635 full-time equivalent employees. The 1984 Treasury Report also estimated that it would cost the IRS \$700 million per year to administer a credit-invoice VAT, once it was fully effective (this estimate did not consider the costs of the Customs Service in administering a VAT).

The design features of a VAT have the largest influence on the number of staff required to administer a VAT. The most significant of these design features that could influence the number of VAT employees is the choice of a credit-invoice method VAT or a subtraction-method VAT. It is possible that a subtraction-method VAT with no significant exemptions could require fewer employees than a credit-invoice method VAT. It is also possible that either type of VAT would require approximately the same number of employees, though they might be deployed differently. For example, more audit employees might be required under a subtraction-method VAT (because of the lack of invoices) than a credit-invoice method VAT.

Estimates of the compliance costs of VATs are sensitive to the design and parameters of the VAT. Of particular importance are the size of the exemption for small businesses and the presence of special rates for particular goods and services. A single-rate VAT applicable to a very broad range of goods and services would be easier for both the Government and the private sector to administer than a multi-rate VAT with numerous exceptions and special rules. For example, a KPMG study of the potential administrative costs of a VAT in the United States estimated that the recurring administrative costs (at 1989 levels) for a VAT with a \$50,000 small business exemption would be \$300 million. With such an ex-

¹²⁷ Department of the Treasury, *Tax Reform for Fairness, Simplicity, and Economic Growth*, Volume 3, *Value-Added Tax*, November 1984.

emption, 6 million businesses would be registered for the tax, only 30 percent of the potential number of filers. The cost of eliminating those filers would be only 1.5 percent of the revenue. If the exemption were increased to \$100,000, the number of registered businesses would be reduced to 4.1 million, and the administrative costs would fall to \$220 million.¹²⁸ Multiple rates in a credit-invoice VAT increase the misreporting and misclassification of sales and require additional administrative resources for auditing. A 1993 GAO report on the administrative costs of a VAT estimated that multiple rates could increase the administrative cost of audits by 30 to 50 percent.¹²⁹

There are several other factors that influence the administrative costs of a VAT. One is the general size of the businesses subject to the VAT. The larger the size of the VAT taxpayer, the more likely that the taxpayer will employ specialized experts to assist in the preparation and filing of the VAT return. These specialized outside experts can help assure compliance with the law, at least insofar as the law is clear. With respect to the U.S. income tax, IRS data generally indicate that large firms make fewer errors in basic computations than small firms. This is also likely to be true with respect to a VAT.

The activity of the government in collecting taxes constitutes the administrative costs of the tax system. Also important are the compliance costs imposed on individuals and businesses in learning about the tax rules, maintaining records, and preparing and filing returns. Surveys of both individual and business taxpayers have attempted to measure the value of time and money spent on filing tax returns. A pair of national surveys conducted in 1983 for the IRS by Arthur D. Little estimated that the total burden on individuals was 1.6 billion hours.¹³⁰ Using data from a mail survey of Minnesota households for the 1982 tax year, Slemrod and Sorum estimated that on average, a taxpayer spent 21.7 hours annually on tax matters. For the population as a whole, this amount translated into about two billion hours and a combined cost in time and money of between five and seven percent of total revenue.¹³¹ In a similar survey conducted by Blumenthal and Slemrod for the 1989 tax year, on average, a taxpayer spent 27.4 hours.¹³² About half of the subjects in the later survey paid for professional assistance in filing their return, spending an average of \$132 per taxpayer for that assistance. The total resource cost per taxpayer was \$354, virtually the same as the cost in 1982, adjusted for inflation. Across both periods, higher compliance costs were associated with higher-income returns, self-employment income, and the presence of itemized deductions and capital gains. The expenditures of time and

¹²⁸ KPMG Peat Marwick Policy Economics Group, *Study of Value-Added Taxation in the United States*, (Washington, D.C.: for the American Petroleum Institute), 1989.

¹²⁹ U.S. General Accounting Office, *Value-Added Taxes: Administrative Costs Vary with Complexity and Number of Businesses*, GAO/GGD-93-78, May 1993. For a survey of evidence from numerous countries, see Sijbren Cnossen, *Administrative and Compliance Costs of the VAT: A Review of the Evidence*, Tax Notes 1609 June 20, 1994.

¹³⁰ Arthur D. Little, *Development of Methodology for Estimating the Taxpayer Paperwork Burden*, Final Report to the Department of the Treasury, Internal Revenue Service, June 1988.

¹³¹ Joel Slemrod and Nikki Sorum, "The Compliance Cost of the U.S. Individual Income Tax System," *National Tax Journal*, 37(4), December 1984, pp. 461-74.

¹³² Marsha Blumenthal and Joel Slemrod, "The Compliance Cost of the U.S. Individual Income Tax System: A Second Look After Tax Reform," *National Tax Journal*, 45(2), June 1992, pp. 185-202.

money for taxpayers who had self-employment income was significantly greater than for those who did not.

Slemrod and Blumenthal used a similar methodology to estimate the cost of compliance with the corporate income tax for large corporations.¹³³ The researchers mailed a survey in 1992 to corporate tax officers for the 1,672 firms in the IRS's Coordinated Examination Program (CEP). Of those surveyed, 365 firms responded. Weighting the responses from the sample, they estimated a total compliance cost of \$1.1 billion for the Fortune 500 firms and \$2.1 for the CEP firms, about 70 percent of which involves Federal taxes.

Adding up the different sources of costs of the current tax system, Slemrod estimates that the sum of taxpayer costs and the IRS budget could be \$75 billion annually, or about 10 percent of Federal and State revenue.¹³⁴

Using estimates of compliance costs in the United Kingdom for a benchmark, the GAO report estimates that the total compliance cost of a VAT in the United States in 1988 would have been between \$4–7 billion, given a \$25,000 small business exemption.¹³⁵

One of the reasons for the complexity and the costs of the current system is the attempt to relate tax liability to the "ability to pay" of the taxpayer. Because income is used as the yardstick for ability to pay, income needs to be measured properly, which can be difficult in the case of certain capital income. One element of simplicity provided by a consumption-based tax system is that capital income need not be measured. Another reason for the complexity of the current system is the existence of special incentives for particular activities. These special treatments involve exceptions from the general rules in order to encourage behavior that is deemed worthwhile. A cost of these incentives is that taxpayers must familiarize themselves with the relevant rules and, especially in the case of individual taxpayers, may need to keep records that they would not otherwise. To the extent that a consumption tax could be instituted on a comprehensive base, this kind of complexity could be reduced. If there are numerous exceptions provided, whether for efficiency or equity reasons, the consumption tax would be made more complex.

For individual consumption taxes, nonbusiness taxpayers would still be required to file returns. Under the tax prepayment approach, the determination of the base may be simpler, since capital income is ignored. One would have to make distinctions between wage and nonwage income so that only the former is included in the base. Under the cash-flow approach, taxpayers would not have to determine the income from capital assets, merely the proceeds from their sales. But borrowing and lending transactions would have to be reported to a greater extent than under current law. In a pure cash-flow approach, only the total amounts would need to be reported: borrowings to increase the tax base and repayments to reduce it. If special provisions are provided to exempt some bor-

¹³³ Joel Slemrod and Marsha Blumenthal, "The Income Tax Compliance Cost of Big Business," University of Michigan, Office of Tax Policy Research Working Paper 93-11.

¹³⁴ Joel B. Slemrod, "The Simplification Potential of Alternatives to the Income Tax," *Tax Notes*, February 27, 1995, pp. 1331-38.

¹³⁵ U.S. General Accounting Office, *Value-Added Taxes: Administrative Costs Vary with Complexity and Number of Businesses*, GAO/GGD-93-78, May 1993.

rowing, as under the Nunn-Domenici plan, the system increases in complexity.

Replacement of the current income tax with a retail sales tax or a VAT would remove the filing requirement from nonbusiness taxpayers. Depending upon the level of exemption for small business, these VATs would require all businesses to file separate returns. For corporations and partnerships, this requirement would be little change from the present, but for sole proprietors, there would no longer be a form (Schedule C) that attached to the individual return. Rather, they would file a new, different form that may resemble the current Schedule C.¹³⁶

It is often argued that one advantage of the credit-invoice method is that compliance and enforcement is enhanced because invoices are available for audit purposes. However, this enforcement mechanism is useful only if there is a credible threat of audits. More importantly, the credit-invoice method possesses a degree of self-enforcement because the tendency of sellers to underreport sale to reduce tax liability will be checked by the incentive of purchasers to have such sales reported at their full price in order to receive full VAT credits. However, at the retail level, there is no similar check on the seller's incentive to underreport sales because final consumers do not receive VAT credits.

Proponents of the subtraction method claim that because the method may rely upon records the taxpayer maintains for other purposes, the subtraction method could be implemented soon after enactment without creating new administrative and recordkeeping burdens for the government or taxpayers. This argument may lead one to believe that "value added" under the subtraction method may be determined by making relatively simple adjustments to existing income tax returns or financial statements. In reality, this is only the case where the taxable base is designed to match existing taxpayer records. Because existing records usually aggregate different types of inputs and outputs, the use of these records will not always result in an accurate measure of value added. For example, the formula for "value added" is often thought of as "sales" less "cost of goods sold." Both "sales" and "cost of goods sold" may be found on income tax returns and on financial statements. However, for both book and income tax purposes, sales includes both domestic taxable sales and nontaxable export sales. Similarly, the "cost of goods sold" account may represent purchases of raw materials that are deductible for VAT purposes as well as internal costs such as wages that are not deductible for VAT purposes. Thus, a more accurate measure of value added would require the examination of more basic accounting information such as sales and purchase registers and invoices. In this respect, the subtraction method would resemble the credit-invoice method.

As a practical matter, the audit of the VAT compliance of a large business likely would be substantially similar under either the credit-invoice or subtraction method. Under the credit-invoice method, the government agency administering the VAT likely would not individually examine the thousands of sales and pur-

¹³⁶ For the flat-tax proposals, there would also be a separate form for all sole proprietorships, partnerships, and corporations.

chase invoices of a large business to determine if the proper VAT amount was remitted to the government. Rather, the agency would likely compare the business's VAT remittances to its overall sales and purchases for purposes of reasonableness and would spot-check various invoices to determine if the proper records and internal controls were being maintained.

Under the current income tax, a nontrivial of activity that is legally subject to tax may escape taxation. A forecast made by the IRS in 1990 projected that in tax year 1992, the amount of income taxes not paid by individuals and corporations may have been as great as \$127 billion.¹³⁷ This does not include the amount of income tax that would be recovered through enforcement actions (examination, collection, and criminal investigation).

Part of the difference between the amount of tax collected and the estimated amount due to the Government arises from the existence of a subset of the economy that largely carries on transactions in cash and avoids detection. A 1980 estimate of the size of this "underground economy" in the United States placed it at between 4.5 percent and 6 percent of gross national product.¹³⁸ It is sometimes claimed that a retail sales tax or a VAT would aid in collecting taxes from the activities of the underground economy, since even individuals who engage in criminal enterprises purchase goods and services from the legitimate sector of the economy. For goods that are purchased by individuals using cash from illicit activities, a retail sales tax or VAT could collect tax on the portion of value added prior to retail (where the transaction may still be done off the books). The opportunity to pick up extra revenue from these sources depends upon how much revenue is currently being collected under the present-law tax of the workers and shareholders of the firm producing the good that is sold to the person using cash from illicit activities. Another component to the underground economy is the noncriminal provision of services by individuals who take cash payments and do not report the receipts. Those services may still escape a retail sales tax or VAT, since the service provider could continue to take cash and not report the receipt. No tax would then be collected on the value added by the service provider, which is similar to the situation under current law, where no tax is collected on the income of the service provider.

C. Transition Issues

The introduction of a consumption tax may affect the prices of existing assets, the overall level of prices, and the level of interest rates. Those changes could lead to windfall losses and benefits for certain taxpayers. In light of these windfalls, a shift to a consumption-tax base may cause one to design specific transition rules to reduce the windfall effects.

¹³⁷ Research Division, Internal Revenue Service, Department of the Treasury, "Income Tax Compliance Research: Net Tax Gap and Remittance Gap Estimates," Publication 1415, April 1990.

¹³⁸ Vito Tanzi, "The Underground Economy in the United States: Estimates and Implications," *Banca Nazionale del Lavoro Quarterly Review*, No. 135, December 1980.

1. *Economic issues*

Changes in asset prices

To understand the possible effects of a transition from the current income tax to a consumption tax, it is instructive to consider separately the introduction of the consumption tax and the elimination of the current tax.

Part IV.A. demonstrated that a consumption tax is equivalent to a tax on wages plus a tax on capital existing at the time of the tax's introduction. This one-time capital tax may change the price of existing assets. In the absence of specific transition rules, the introduction of a consumption tax will result in increased tax liability on the returns to existing assets. Consider as an example a piece of machinery owned by a business at the time a consumption tax is imposed. Once the consumption tax is in place, the proceeds of sales of the output of the machine will be included in the tax base. The business can deduct the cost of raw materials and labor purchased after the date the consumption tax is introduced, but it cannot take a deduction for the use of the machine, since the machine was purchased prior to the introduction of the consumption tax. The consumption tax causes the after-tax return of the machine, and hence the value of the machine, to fall. The business cannot avoid this loss in wealth by disposing of the machine. A prospective buyer of the machine would be willing to pay a price for the machine equal to its market value prior to the consumption tax (because the prospective buyer will be able to take a full deduction for the cost of the machine). But the sales price of the machine will be included in the tax base of the business that sells the machine, giving rise to a tax liability. The net proceeds the business can get from selling the machine are no more than the after-tax return it would receive from keeping the machine and selling the output it produces. In either case, the business suffers a loss in value on the machine it owns at the time the consumption tax is introduced. The higher the rate of the consumption tax, the larger the decline in the value of existing capital.

If the consumption tax replaces the existing income tax, the decline in the value of existing capital may be tempered. The elimination of the income tax would have no effect on the value of existing capital if the basis of the existing assets were equal to their market value. Again consider a machine in place at the time the income tax is eliminated. If the unamortized basis of the machine equals its market value, then the reduction in the tax liability on output produced by the machine just matches the loss in the value of depreciation deductions over the remaining life of the machine. If the business had been able to take advantage of accelerated depreciation (relative to economic depreciation) on the machine before the income tax was repealed, then the basis of the machine would have been less than its market value. In such a case, the elimination of the income tax would increase the value of the existing capital, since the reduction in the tax liability on output would exceed the loss in the value of depreciation deductions. The net effect of the replacement of the current income tax by a consumption tax is that the decline in the value of existing business assets will depend upon the basis of the assets. For businesses holding assets of

equal market value at the time of the replacement of the current income tax by a consumption tax, the decline in value will be greater for those holding assets with larger basis.¹³⁹

The substitution of a consumption tax for the present income tax may have effects on asset prices in addition to those caused by the treatment of unamortized basis of business assets. The income tax contains numerous provisions that provide preferential treatment to certain business assets. The result of these provisions is to cause the spread between before-tax and after-tax returns to vary across assets, with smaller spreads for assets with tax-preferred treatment. Since a consumption-tax regime will tend to equalize the tax treatment across different assets, the relative prices of these assets would change. Specialized or immobile assets in sectors losing their relatively favorable tax treatment would be expected to experience price declines.¹⁴⁰ In particular, owner-occupied housing could experience price declines since the consumption of owner-occupied housing services will lose its current tax-favored treatment under many consumption tax plans.¹⁴¹

Changes in price level

While the imposition of a consumption tax could lead to a fall in the value of existing assets, the distribution of that loss across equity and debt holders will depend upon what happens to the price level.

Because a broad-based VAT is commonly believed to increase prices by the amount of tax, it is generally expected that under certain conditions a VAT may increase the price level. The degree by which it would raise the price level depends on the rate of tax and the comprehensiveness of the base. In general, any increase will be less than the rate of tax. For example, if a 10-percent VAT is levied in an economy where consumption is 70 percent of output (because, typically, investment goods are excluded from a consumption-based VAT, and government as well as certain other consumption goods are zero-rated), the most the price level may be expected to increase would be 7 percent. The increase will ultimately be determined by macroeconomic policy, especially monetary policy. If the Federal Reserve does not accommodate the upward pressure on prices from the tax by increasing the supply of money, the overall price level would not be expected to increase (although the price of taxed goods *relative* to zero-rated goods would still increase). Finally, it is also important to note that since the VAT only raises the price level when it is imposed, any increase in the price level would most likely be a one-time event.¹⁴²

¹³⁹ Laurence J. Kotlikoff, "The Economic Argument for a Flat Tax," mimeo, testimony to the Senate Finance Committee, May 18, 1995.

¹⁴⁰ Shounak Sarkar and George R. Zodrow, "Transitional Issues in Moving to a Direct Consumption Tax," *National Tax Journal*, 46(3), September 1993, pp. 359-76.

¹⁴¹ Housing services may be taxed, in advance, at the time of the purchase of a house under a credit-invoice or subtraction-method VAT. Under an individual consumption tax of the tax prepayment type, such as the flat tax, houses are purchased with after-tax dollars and owner-occupied housing services (the returns of that housing purchase) are untaxed, the same treatment accorded financial assets such as stocks, bonds, and savings accounts.

Note that S. 488 and the Nunn-Domenici proposal would retain some preference for housing.
¹⁴² For a survey of the effects of introducing a VAT or increasing VAT rates on price levels and inflation, see Alan A. Tait, *Value Added Tax, International Practice and Problems*, (Washington, D.C.: International Monetary Fund), 1988.

Since nominal price levels are determined in part by the independent actions of the Federal Reserve, they cannot generally be predicted in advance. For example, while it is usually assumed that a consumption tax increases the prices of taxed goods, it also is conventional to expect that a wage tax reduces nominal after-tax wages, and a tax on existing capital reduces its value. These assumptions are valid only if the Federal Reserve reacts differently to economically equivalent tax changes.

When prices rise, the value of all income falls, unless the income is specifically indexed to changes in the price level. For example, an individual living entirely on an indexed Social Security pension will not be affected by a uniform price increase.¹⁴³ Similarly, an individual receiving Medicare services will be partially protected against the price rise, because the in-kind transfer of health care is effectively indexed.¹⁴⁴ In contrast, recipients of unindexed private pensions will experience a decline in purchasing power when prices rise.

If, on the other hand, nominal wages and the returns to old assets fall, only certain types of income are affected. Recipients of fixed nominal transfers are not hurt by the tax. Such transfer payments include both indexed payments mentioned above, as well as non-indexed government transfers such as Aid to Families with Dependent Children (AFDC). In addition, any private contracts with fixed nominal payments are unaffected by the tax. In particular, holders of existing bonds receive the same nominal interest payments as before, since the introduction of the tax does not change any contractual agreements between issuers and holders. If prices rise, the value of all capital income, both financial and physical, is reduced, but if factor returns fall, only income from existing physical assets is reduced in value.

The reason bondholders are unaffected by the consumption tax while owners of physical assets are burdened is that the returns to bond investment can be consumed directly. That is, the output of a bond is cash, the consumption value of which does not change if prices do not increase. On the other hand, owners of physical capital are hurt by the tax when factor returns fall. The value of output from such capital is reduced, because the owners are liable for the consumption tax when the produced goods are sold.

If the price level does rise with the imposition of a consumption tax, and if the price increase is not anticipated (for example, through an increase in nominal interest rates so that the real value of the money repaid to the lender is unchanged), then borrowers will benefit at the expense of lenders because they will be able to repay their obligations with cheaper dollars. The losses imposed by the consumption tax's one-time levy on existing wealth will be shared by equity and debt holders. By contrast, if the price level does not increase, then equity holders suffer the entire decline in existing asset values and debt holders are held harmless.

¹⁴³ This assumes that the fraction of the pension that is taxed, and the applicable tax rate, are fixed.

¹⁴⁴ Food stamps are another example of an indexed transfer since the nominal value of food stamps available to individuals is indexed to the price of a designated basket of food.

Changes in interest rates

The replacement of the present income tax with a consumption tax could be expected to affect the level of interest rates. The ultimate effect would depend upon the nature of the demand for and supply of savings. At one extreme, suppose that the supply of capital is extremely responsive to the after-tax rate of return (for example, if capital is mobile across international borders and the aggregate supply of foreign capital is large relative to the supply of capital in the United States). Then the elimination of the income tax would have no effect on the after-tax rate of return received by savers, since the world interest rate would continue to prevail. At the other extreme, suppose that businesses have an inexhaustible menu of investment opportunities available to them that can yield a given before-tax rate of return. In this case, the elimination of the income tax would lead to an increase in the after-tax rate of return by the amount of the tax. For intermediate cases, the interest rate will change in some measure between the extremes.

Any increase in interest rates will increase the return on existing assets and thus will help to offset the reduction in wealth caused by the imposition of the consumption tax. The extent of this offset in any individual's case is sensitive to the pattern of consumption. If the individual is elderly, for example, and expects to consume his existing assets shortly after the consumption tax is introduced, any increase in return on those assets will do little to offset the one-time decrease in the value of the assets. On the other hand, if the individual has a much longer consumption horizon, an increase in return on existing assets may go a long way toward offsetting the one-time decrease in value.¹⁴⁵

In the longer run, any increase in investment that is spurred by the switch to a consumption tax will lead to a larger capital stock. With a larger capital stock, the productivity of labor (the extra output for an extra unit of labor services) will increase, but the productivity of capital will be smaller, reducing somewhat equilibrium interest rates.

Transition issues for individual consumption taxes

The above discussion is relevant for the business-level taxation under a credit-invoice or subtraction-method VAT as well as for the cash-flow business tax. The individual consumption taxes, of either the tax prepayment or the cash-flow type, introduce an extra dimension for transition issues regarding the carryover of assets from the pre-consumption-tax regime. Independent of the issue of whether the value of those assets changes is the question of how to treat subsequent returns or dispositions of existing assets and liabilities.

Under the cash-flow method of an individual consumption tax, all cash returns to assets (such as interest and dividends) and all proceeds of asset sales are included in the tax base, with a deduction allowed for new savings. In the absence of transition rules, the sales of existing assets would generate an increase in the tax base by the full amount of the proceeds, even if the assets were purchased with after-tax dollars. Existing basis would not be available

¹⁴⁵David F. Bradford, "Consumption Tax Alternatives: Implementation and Transition Issues," mimeo, Princeton University/

to reduce tax liability, resulting in a large windfall loss. On the other side of the balance sheet, the repayment of loan principal would be deductible (as would repayment of interest) under a cash-flow consumption tax. For loans entered into prior to the consumption tax, such treatment would yield large windfall gains to borrowers.

Under the tax prepayment approach of an individual consumption tax, the transition concerns are largely reversed. All cash returns to assets and all proceeds of asset sales are excluded from the tax base, and no deduction is allowed for new savings. Assets carried into the consumption-tax regime would escape tax entirely on their returns, even if some portion would have been taxed under a continuation of present law. Accrued but unrealized capital gains would escape taxation entirely. On the other side of the balance sheet, the repayment of interest would no longer be deductible. For certain loans entered into prior to the consumption tax (e.g., home mortgages), such treatment could yield large windfall losses for borrowers.

Desirability of transition relief

The net effect of the transition to a consumption tax on any individual taxpayer would be sensitive to the composition of assets and liabilities and the patterns of wage receipts and consumption. Depending upon the portfolio of assets a given individual holds, for example, the asset price changes described above may largely cancel out one another.

The transition from an income tax to a consumption tax may have a large impact on the tax burden across generations. In general, replacement of an income tax with a consumption tax shifts the tax burden toward the elderly, whose consumption often exceeds their current income. The one-time tax on wealth introduced by the consumption tax may fall heavily on the elderly, who in the aggregate hold a large share of existing assets.

Transition relief, such as grandfather rules for assets acquired prior to the start of the consumption tax or special rules for the amortization of remaining basis in assets, may appear desirable on equity grounds. Such relief, however, may reduce the efficiency gains of switching to a consumption tax. In simulations of the effect of replacing an income tax with a consumption tax, much of the efficiency gains arise through the consumption tax's one-time levy on existing capital. If unanticipated, that tax on existing capital is a lump-sum tax, with no distortionary effect.¹⁴⁶ If transition rules reduce the effect of the tax on existing wealth, then the rate of the consumption tax must be increased to make up for the loss in revenue, and the base of the tax becomes more like a wage tax. Both of these factors will reduce the efficiency of the consumption tax: the former because the economic inefficiency of a tax is proportional to the square of the tax rate, and the latter because a wage tax is a narrower base than the existing income tax.

¹⁴⁶ If individuals anticipate the switch to consumption taxation, the lump-sum nature of the wealth tax is reduced. Individuals may take steps to avoid the tax by accelerating consumption. Businesses may reduce investment in order to wait until the purchase of capital goods may be expensed.

2. Implementation of transition rules

In general

Many commentators who have advocated consumption-based taxes have mentioned that transition from the current system to the proposed system may be an important consideration. However, whether by design or otherwise, most of the consumption taxes introduced to date do not provide transition rules.¹⁴⁷ One notable exception is the USA Tax (S. 722) introduced by Senators Domenici and Nunn, which does provide explicit transition rules.¹⁴⁸

The discussion in the preceding section provides conflicting views on the need for transition from the current income-based taxes to consumption-based taxes. Some commentators argue that transition may not be desirable or necessary for a variety of reasons. They reason that (1) all policy changes create "winners" and "losers" and transition generally has not been provided in such cases;¹⁴⁹ (2) not providing transition rewards those persons who have diversified their investments as insurance against legislative change and such behavior should be rewarded or encouraged;¹⁵⁰ (3) transition rules that benefit "old" wealth would negate efficiency gains brought about by the new consumption-based tax;¹⁵¹ (4) the current tax system is a hybrid system containing elements of both consumption and income bases and, as such, transition is not paramount;¹⁵² and (5) transition rules are likely to create complexity¹⁵³ as well as reduce revenue.¹⁵⁴ Despite arguments that transition from the current tax system to the new consumption tax is not necessary, many commentators realize that, as a practical matter, transition is likely.¹⁵⁵

Although the particulars of any transition rules depend upon the type of tax system that is being adopted, discussions of transition rules generally involve the treatment of savings accumulated prior to the enactment of the new system. The income leading to such accumulations would have been taxed under the income tax system

¹⁴⁷ See, e.g., "Technical Overview to the Comprehensive Tax Restructuring and Simplification Act of 1994 (S. 2160)", released by Senators Boren and Danforth, on May 26, 1994, which states: "Finally, it is important to note that the legislation assumes that the BAT [Business Activities Tax] is fully phased in. The drafters have not attempted to address the difficult transition questions that extensive reform necessarily entails. . . . [W]e have to know where we are going, before we know the best way to get there."

¹⁴⁸ See Part III.C. of this pamphlet for a discussion of the transition rules of S. 722.

¹⁴⁹ Michael J. Graetz, "Implementing a Progressive Consumption Tax," *Harvard Law Review* 92, No. 8 (June, 1979) p. 1575 et seq.

¹⁵⁰ Louis Kaplow, "Government Relief for Risk Associated with Government Action," *Scandinavian Journal of Economics* 94, No. 4, (1992).

¹⁵¹ See, Alan J. Auerbach and Laurence J. Kotlikoff, *Dynamic Fiscal Policy* (Cambridge University Press: New York) 1987.

¹⁵² Specifically, a great deal of "old" wealth has been tax-favored under the present-law rules relating to qualified retirement plans, accelerated depreciation on business property, and personal deductions relating to home ownership. See, e.g., Rudolph G. Penner, "Outline of Discussion of Individual SEIT," a paper prepared for a symposium on the Nunn/Domenici proposal, sponsored by the Columbia Institute on October 5, 1993, with respect to transition rules for individuals.

¹⁵³ Shounak Sarkar and George R. Zodrow, "Transitional Issues In Moving to a Direct Consumption Tax," *National Tax Journal*, Vol. 46 No. 3, p. 359.

¹⁵⁴ John F. Due, "Some Unresolved Issues in Design and Implementation of Value Added Taxes," *National Tax Journal*, Vol. 43, No. 4, p. 393.

¹⁵⁵ See, "The Flat Tax," *Fortune*, June 12, 1995, p. 44: "Perhaps the knottiest [problem] will be how to treat the substantial unused depreciation allowances businesses have on their books—allowances that the flat tax would not permit. The value of such unused depreciation claims today totals some \$520 billion. . . . What to do? Were Washington to disallow the deductions, every CEO-laden corporate jet in America would commence strafing Capitol Hill."

when it was earned. Consequently, some believe that it would be unfair to tax the spending from such wealth under the new consumption-based system. As discussed in the prior section of the pamphlet, this issue is of particular importance to the elderly, who are no longer earning wage income, hold a disproportionate share of "old" capital, and are dissaving from such capital to meet their consumption needs. Similarly, some believe that the adjusted bases of capital assets held by a business on the date of enactment of a new system would require special treatment. Absent special transition rules, a new consumption-based system generally would not permit any deductions for the unrecovered basis of such assets. Following is a discussion of various forms of transition relief with respect to these two issues.

No transition

As described above, some commentators advocate no transition rules for the switch from the current tax system to a consumption tax. In addition, it is generally believed that a substantial amount of time from the date of enactment to the effective date of the consumption tax would be needed in order to properly implement the new system.¹⁵⁶ With a delayed effective date, transition rules become less of a concern as taxpayers would have opportunities to arrange their investments to correspond to the new tax system. Indeed, some suggest that financial markets already are beginning to make such adjustments.¹⁵⁷ However, even a delayed effective date would not adequately address the concerns of elderly individuals who, because of the stage of their lifecycle, are naturally dissaving. One possible approach to this situation would be to provide relief outside the tax system, such as increasing transfer payments (i.e., social security) to the affected class of individuals.

In addition, reliance upon the current tax system for a period of time allows any transition relief to be provided within such system (e.g., depreciation for the adjusted income tax basis of property in existence upon the date of enactment could be accelerated to fit this window and investments with accrued but unrecognized capital gains could be marked-to-market and subject to tax in order to prevent any windfall gains from occurring.) However, providing a relatively long lead-in period may have adverse consequences as taxpayers may be reluctant to make current investments that may have significantly better tax treatment if made after the effective date.

It should be noted that transition relief probably would not be needed if a consumption tax is adopted in addition to, rather than in replacement of, the current tax system. For example, in Europe, VATs generally were adopted as a replacement for cascading turnover taxes. In some cases, the countries provided rebates for turnover taxes previously paid with respect to goods subject to the new VAT.¹⁵⁸ Such transition was relatively easy to administer, given the similarity of turnover taxes and VATs.

¹⁵⁶ See, General Accounting Office, *Value-Added Tax: Administrative Costs Vary with Complexity and Number of Businesses*, GAO/GGD-93-78 (May 1993), p. 85, estimating that 18 to 24 months would be needed to implement a VAT.

¹⁵⁷ See, "What the Flat Tax Means to Investors," *Fortune*, June 12, 1995, p. 51.

¹⁵⁸ See, Tait, *Value-Added Tax: Practice and Problems*, pp. 178-186.

Even if it is decided not to provide transition relief for old saving upon the implementation of a consumption-based tax, certain transition rules would be required for certain items such as the treatment of long-term contracts and other works-in-process that span the effective date and used goods in the hands of consumers on the effective date that are sold in commercial settings after the effective date.¹⁵⁹

Phased-in transition

Others have suggested that the current tax system could be phased-out as the new system is being phased-in.¹⁶⁰ Such approaches could be structured in a number of ways. Taxpayers could be subject to both systems for a period of years, with the income tax rate declining as the consumption tax rate increases. At the end of a specified period, the income tax would no longer exist. Alternatively, taxpayers could be required to pay the higher of their liability as computed under the new or the old systems during the transition period (similar to the operation of the regular income tax and the alternative minimum tax under present law).

Providing a phased-in transition lessens the impact from shifting between two different systems and provides the Government with a more stable revenue pattern during the transition period. On the other hand, phased-in transition creates complexity and uncertainty (i.e., taxpayers will wonder if future legislators will modify the transition); is a second-best solution in some respects because it retains vestiges of the income tax system and thus, may discourage certain investment; and does not adequately address the goals of those who want immediate, fundamental tax reform.¹⁶¹

Use of income tax attributes under the consumption tax

Another form of transition would allow all or a portion of the income tax attributes in existence on the effective date of consumption tax (e.g., loss and credit carryovers and adjusted basis in assets) to be used under the new tax system. The attributes could be amortized over a specified period or taken into account with respect to an identifiable event (e.g., the sale of a pre-effective date asset).¹⁶² Professors Hall and Rabushka, in the revised version of their flat tax,¹⁶³ suggest allowing a business to continue to depreciate the adjusted basis of pre-effective date property for purposes of computing the business' flat tax liability and increasing the flat tax rate, on temporary basis, to accommodate these additional deductions on a revenue neutral basis. They also suggest allowing a home owner to elect to deduct 90 percent of his or her mortgage interest payments as long as the lender agrees to include 100 per-

¹⁵⁹ For a discussion of these issues, see Schenk, *Value Added Tax: A Model Statute and Commentary*, A Report of the Committee on Value Added Tax of the American Bar Association, ch. 9. In addition, for a discussion of issues relating to the treatment of durable goods (such as housing) in existence on the date of enactment of a consumption tax, see Part IV.E.1. of this pamphlet.

¹⁶⁰ See, Department of the Treasury, *Blueprints for Basic Tax Reform*, 1977.

¹⁶¹ Shounak Sarkar and George R. Zodrow, "Transitional Issues In Moving to a Direct Consumption Tax," *National Tax Journal*, Vol. 46 No. 3, p. 367 for a summary of these arguments.

¹⁶² The transition rules provided in S. 722, as described in Part III.C. of this pamphlet, contain elements of both these approaches.

¹⁶³ See, "The Flat Tax in 1995," excerpt from testimony prepared for the Senate Finance Committee on May, 18, 1995, at pp.19-21.

cent of such interest in income (apparently, under the Hall-Rabushka flat tax, lenders are not required to include interest received in income).¹⁶⁴ Providing transition would likely involve increased recordkeeping, may not be compatible with certain forms of consumption taxes (e.g., it is unclear how such relief could be structured under a retail sales tax), would result in revenue shortfalls, and would not address the windfall gains realized by the "winners" under tax restructuring.

D. Specific Issues in Creating a Consumption Tax Base

1. Housing, land and other durable goods

Measuring consumption and determining taxable events

For reasons of administration, measurement and taxpayer liquidity, most tax systems (whether income, consumption, excise, or other type of tax) impose tax and measure the tax base with respect to identifiable events. Sales or excise taxes generally are imposed when consideration is exchanged for the taxable good or service. Income taxes generally attempt to measure income within a specific taxable period; taxable events under an income tax often are determined with respect to exchanges of goods or services for consideration.¹⁶⁵

Ideally, a consumption tax should be imposed as consumption occurs. However, not all consumption occurs at or near a readily identifiable event. For example, a person may acquire in one tax period a good or service that is consumed over a number of future periods; in such cases, the amount of consumption in each of the future periods is not easily observed. Housing, land, consumer durables, and collectibles are specific examples of such durable goods. However, the fact that the actual consumption of durable goods may not occur at a time that is generally recognized as a taxable event does not mean that a consumption tax cannot be applied to such goods. Rather, it means that a different approach to taxation may be necessary.

Economic theory of durables goods

Individuals buy tangible, durable goods because they offer a stream of services over a period of time. The owner of a durable good may rent it to others and collect rental payments equal to the value of the services generated by the durable. Alternatively, the owner can hold the durable for his or her own use. In that case, the benefit the owner derives from the durable is the ability to enjoy its services without paying rent to another individual. In either case, the durable is valuable because of the future services that it yields.

According to economic theory, the current market value of any good should equal the expected present value of the entire stream

¹⁶⁴ Such treatment is not widely held. For a discussion of the issues involved in the treatment of financial intermediation services under a flat tax or other consumption tax, see Parts IV.A. and E.3. of this pamphlet.

¹⁶⁵ For a further discussion of taxable events under the income tax, see, Daniel N. Shaviro, "An Efficiency Analysis of Realization and Recognition Under the Federal Income Tax," 48 Tax Law Review 1 (1992).

of consumption services provided by the good throughout its useful life. Consequently, the current price of a house or automobile should reflect increases or decreases in the future value of the house or automobile that are anticipated by the market. Those anticipated changes in value reflect anticipated changes in the value of housing or transportation services that the durable good will provide in the future.

Example 1.—Assume that the rate of return on houses is 5 percent per year. Thus, a house that yields \$7,500 per year of housing services forever will always sell for \$150,000 (\$7,500 divided by 5 percent). A person who buys such a house and holds it forever will receive \$7,500 per year of services, which have a present value of \$150,000. The correct price for a purchaser who plans to resell at a future date is also \$150,000. For example, if the purchaser holds the house for 10 years and then sells, he or she will receive \$59,020 of housing services in present value during those 10 years (the present value of 10 annual payments of \$7,500, discounted at 5 percent, is \$59,020). The purchaser will receive \$150,000 when the house is sold in 10 years, and the present value of this receipt is \$90,980. The present value of the housing services and the sale proceeds is \$150,000 (the present value of expected consumption services for 10 years (\$59,020) plus the present value of the expected value of the house in 10 years (\$90,980)).

Methods of taxing durables

The annual streams of consumption services provided by a durable good are measured by the rental values provided by the good. Thus, a durable good that is owned by one taxpayer and rented to a consumer may be properly subject to a consumption tax by taxing the rental payments.

There are three basic methods for taxing owner-used durables: the imputed rental approach; the *ex ante* approach and the *ex post* approach.

The imputed rental approach

Under the imputed rental approach, a durable good that is owned and used by a consumer could be properly subject to a consumption tax by levying a tax on the owner-consumer that is based on the amount of rent the owner would charge had he or she leased the good at its fair rental value to himself or herself. As can be seen by analogy to the case in which the durable is rented to another party, this approach properly taxes the annual consumption services derived from a good that is owned by a consumer.

Example 2.—Assume Ms. A has \$150,000 and wishes to acquire housing services. Also, assume that the rate of return on houses is 5 percent per year. Thus, a house that yields \$7,500 per year of housing services forever will sell for \$150,000. One option is for Ms. A to buy such a home for \$150,000, lease it at \$7,500 per year to another consumer and use the rental proceeds to lease an identical home for her own use at \$7,500 per year. In such case, it is clear that Ms. A is receiving \$7,500 of consumption services per year (measured by the rent she pays). Alternatively, if Ms. A simply bought the first house for \$150,000 and used it herself, she still

would receive \$7,500 per year in housing services. This amount is the annual imputed rental value of the owner-occupied home.

Most commentators have noted that the imputed rental approach is the theoretically correct way to tax owner-consumed durable goods but also have pointed out the administrative and political difficulties of this approach.¹⁶⁶ As further described below, the imputed rental approach (1) makes all owners of durables annual taxpayers; (2) requires annual determinations of imputed rental value; and (3) may present liquidity problems for taxpayers.¹⁶⁷

The ex ante approach

The *ex ante* approach imposes a consumption tax on the initial sale of the durable good and never on subsequent resales. An *ex ante* approach taxes the present value of the anticipated future value of all consumption services generated by the durable good. This approach is equivalent to the imputed rental approach, in present value terms if the market for durable goods is efficient and if no unexpected changes in the durable good's value occur after it is purchased. Under the *ex ante* approach, resales of durables are not taxable events.

Example 3.—Consider Examples 1 and 2 above. The \$150,000 purchase price of the home represents the present value of the streams of \$7,500 annual rents (imputed or actual) that the home is expected to generate forever. Thus, taxing the \$150,000 price upon purchase taxes the entire consumption value of the home and is equivalent, on a present value basis, to taxing the annual rents when paid. If the tax rate is 10 percent, the homeowner would pay \$15,000 on the purchase date under the *ex ante* approach. On the other hand, under the imputed rental approach, the homeowner would pay tax of \$750 per year forever. The present value of the \$750 annual payments is \$15,000 ($\$750/.05$). Although the *ex ante* and imputed rental methods collect the tax liabilities at different times, their present values are equivalent.

The preceding discussion assumes that durables always yield the rental streams that the purchasers expected at the date of purchase. However, unanticipated changes in rental values of, and rate of returns for, a durable good commonly occur. For example, some items may unexpectedly become more fashionable and their rents may rise in value; the rental value of other goods may lose value because of the unanticipated development of competing goods. When these changes occur, the price of the durable good will rise or fall, accordingly.

Under the *ex ante* approach, no additional tax is collected if the value increases and no previously collected tax is rebated if the value declines. When either event occurs, the *ex ante* approach is no longer equivalent to the imputed rental approach. An unanticipated development that lowers the good's rental value would lower the owner's tax liability under the imputed rental approach, but would have no tax consequences under the *ex ante* approach. Similarly, an unexpected improvement in the good's rental stream

¹⁶⁶ See, for example, Charles E. McLure, Jr., *The Value Added Tax: Key to Deficit Reduction?*, American Enterprise Institute Studies for Public Policy, 1987, p. 129.

¹⁶⁷ It is true that most State and local jurisdictions impose annual real estate taxes on owner-occupied housing despite these difficulties.

would increase the owner's tax liability under the imputed rental approach, but would have no tax consequences under the *ex ante* approach.

Another approach, called the *ex post* approach, partially accounts for the occurrence of unexpected events and, in certain circumstances, more closely approximates the imputed rental approach.

The ex post approach

The *ex post* approach imposes a consumption tax on the initial sale and all subsequent sales, with a credit for prior tax paid. The *ex post* approach indirectly taxes unanticipated changes in the future rentals produced by the durable good by taxing the resulting increases in the good's price to the extent that such increases are realized.

Example 4.—Consider the house in Examples 1, 2, and 3, which initially sells for \$150,000 because it is expected to yield \$7,500 per year in housing services forever. Assume, however, that an unexpected development immediately after purchase reduces the expected stream of housing services to \$2,500 per year forever. If housing markets are efficient, the value of the house falls to \$50,000 ($\$2,500/.05$). Under the imputed rental approach, the tax liability would be \$250 per year after the occurrence of the unexpected condition. The present value of a stream of \$250 annual tax payments is \$5,000 ($\$250/.05$). Under the *ex ante* approach, however, a tax of \$15,000 (10 percent of the \$150,000 purchase price) would be collected on the purchase date and no subsequent adjustment would ever be made. Under the *ex post* approach, tax of \$15,000 would also be collected on the purchase date. However, if and when the house is resold for \$50,000, a tax of \$5,000 initially would be imposed, but would be offset by the \$15,000 credit for tax previously paid, resulting in a net refund of \$10,000 (10 percent of the \$100,000 decrease in value). If the house had been resold immediately upon the occurrence of the unexpected condition, the present value of the tax liability under the *ex post* approach matches that imposed under the imputed rental approach. If the resale does not occur for some time, the tax refund is delayed and its present value is reduced. In that case, the *ex post* approach does not offer full relief for the decline in rental values. However, the *ex ante* approach offers no relief at all; it effectively taxes housing services that, although anticipated at the time of purchase, were never received.

While the above example concerns a durable good's decrease in value, the analysis also can be applied to an increase in value, resulting from an increased stream of services. The increased rents would be taxed under the imputed rental approach, but would escape taxation under the *ex ante* approach. The *ex post* approach, however, would collect additional tax if and when the durable is resold.

The *ex post* approach departs from the imputed rental approach if the stream of services is expected to change over time. If increases in value are anticipated (the investment component of the durable), the *ex post* approach results in overtaxation because it

taxes investment income as well as consumption. In cases where decreases in value are anticipated, it results in undertaxation.

Example 5.—Assume that the housing services produced by a house are initially \$3,000 per year and are expected to rise at a steady rate of 2 percent per year. If the rate of return on houses is 5 percent per year and if housing markets are efficient, this house will sell for \$100,000, because that is the present value of this ever-increasing stream of housing services. Assume that no unexpected events ever occur and the housing services are received as expected. Thus, the price of the house will rise by 2 percent per year, from its initial value of \$100,000. Under the imputed rental approach, the tax liability with a 10-percent tax will initially be \$300 per year and will rise by 2 percent per year, yielding a present value of \$10,000. The *ex ante* method would collect \$10,000 tax at the date of first sale and never make any subsequent adjustment, thereby matching the imputed rental approach in present value terms. However, the *ex post* method would collect \$10,000 tax on the date of first sale and then collect additional tax on each subsequent resale as capital gains are realized. The additional taxes result in the *ex post* method imposing a heavier tax burden than the imputed rental approach.

The reason that the *ex post* method fails in this instance is that the initial price paid for a durable represents the anticipated future value of services, including any anticipated increases over time in those services. The \$2,000 capital gain in the first year does not represent an additional benefit that should be taxed; it offsets the fact that the house yielded only \$3,000 of services in that year.

In the above example, the durable rose in value. The limitations of the *ex post* approach also can be seen in the case of a durable that is expected to depreciate.

Example 6.—Consider a car that is expected to provide \$5,000 worth of transportation services each year for five years and none thereafter. If the rate of return on cars is five percent per year and if the car market is efficient, the car will initially sell for \$21,647. Assume that no unexpected events occur. The car's value will steadily decline throughout its useful life, falling to \$17,730 after one year, to \$4,762 after four years and to zero (excluding any salvage value) after five years. The imputed rental approach would impose tax of \$500 per year for five years. A stream of \$500 a year for five years has a present value of \$2,165. Similarly, the *ex ante* approach would impose an initial tax of \$2,165 (\$21,647 times 10 percent) with no subsequent adjustments. The *ex post* approach also would impose an initial tax of \$2,165, but would refund part of the tax if and when the capital losses on the car are realized. For example, if the car were sold for almost nothing shortly before the end of the five-year period, virtually all of the tax would be refunded. In this case, the *ex post* approach therefore imposes a lighter burden than the imputed rental approach.

Application of the *ex post* approach in this case would be inappropriate. No tax relief is warranted for the losses in this case, because the losses are anticipated and reflect the fact that the durable's rental stream is expected to decline. During the first year, for example, the car owner suffers a capital loss of \$3,917 (\$21,647 less \$17,730). However, the owner also is receiving \$5,000 of annual

transportation services on an investment of \$21,647. The owner's net return (services of \$5,000 minus capital loss of \$3,917) is \$1,083, which represents the normal five-percent annual return on the owner's investment.

When owners of durables experience anticipated capital losses, it also is true that they are receiving large consumption services relative to the durable's current price. Some commentators therefore refer to anticipated losses on durables as being due to "consumption." This terminology is somewhat misleading; the durable loses value not because it yields consumption but because it yields excessive consumption, i.e., consumption greater than the durable's current value multiplied by the rate of return.¹⁶⁸ The fact that current consumption is high relative to current price can be restated by saying that the durable is priced cheaply relative to its current consumption, which reflects the fact that the consumption stream is expected to decline.

Another area of concern involves increases in value that result from the owner's own labor in improving or maintaining the durable. For example, some individuals buy used cars and refurbish them for subsequent resale. The refurbishment increases the consumption stream provided by the durable. To the extent that the increased value results from the owner's purchase of materials, it is taxed because these materials are subject to tax. This issue is also important with respect to owner-occupied housing. Under the imputed rental approach, increases in value due to refurbishment will be subject to tax as the rental value of the property rises. The increased value attributable to the owner's labor will not be taxed under the *ex ante* approach. In contrast, under the *ex post* approach, any increase in value due to refurbishment will be taxed if and when the gain is realized upon resale, regardless of whether it is attributable to labor or materials. To avoid double taxation of the gain attributable to the materials, under the *ex post* approach the cost of the materials should be capitalized and the corresponding tax rebated upon resale.

Other considerations in choosing between the ex post and ex ante approaches

The *ex ante* and the *ex post* approaches each have advantages and disadvantages. These advantages and disadvantages relate to (1) equity, (2) economic efficiency, (3) the treatment of durables in existence on the implementation date, (4) administrative concerns, (5) the "lock-in" effect, and (6) other concerns.

Equity.—Evaluating the equity implications of the two approaches requires that a definition of equity be specified. Some observers have argued for an *ex ante* equity definition, under which equivalent taxes should be levied on people with equal expected consumption. This *ex ante* equity criterion would automatically be satisfied under the *ex ante* approach.

¹⁶⁸ This is clearly seen by considering the durable in the earlier example which yielded a constant stream of rents over time. It never declines in value, although the owner consumes every year. There is no excess consumption in that case, because the durable is priced so that consumption equals the price multiplied by the rate of return.

However, an *ex post* equity criterion is probably more widely held.¹⁶⁹ Under this criterion, people who have the same actual consumption should make equal tax payments. The imputed rental approach and the taxation of the rental payments on rented durables satisfies this criterion because consumption is accurately measured and taxed.

The extent to which the *ex post* equity criterion is satisfied depends upon the extent to which consumption is accurately measured. It is not clear which approach is superior in this respect.

The *ex post* approach adjusts for deviations of actual imputed rents from expected ones by imposing the consumption tax on the capital gains or losses if and when they are realized. This characteristic of the *ex post* approach offers a strong argument for applying this method to durables that are highly risky and frequently experience substantial unanticipated capital gains and losses.

However, as indicated above, the *ex post* approach treats anticipated capital gains or losses inappropriately. For durable goods that are expected to rapidly appreciate (depreciate), the *ex post* approach imposes an effective tax rate on the underlying services that is greater (lesser) than the stated tax rate. This differential taxation might be considered inequitable and offers a strong argument for applying the *ex ante* approach to durables that are expected to depreciate or appreciate rapidly.¹⁷⁰

The relative accuracy of the consumption measurement obtained under the two methods therefore depends upon the primary source of capital gains and losses for a particular category of durable goods. The *ex post* approach is preferable if the gains and losses primarily arise from unanticipated changes in rental streams while the *ex ante* approach is preferable if they primarily arise from an upward or downward slope in the time-profile of anticipated rental streams.¹⁷¹

Neutrality principle.—It may be desirable for a consumption tax to have neutral treatment of different durable goods relative to each other and relative to nondurable consumption. The *ex ante* approach satisfies this neutrality objective because consumers face the same expected tax rate on all forms of consumption. (The expected, not the actual, tax rate is relevant here because it is the expected tax rate that most significantly affects consumers' decisions on whether to purchase durables and their choice between different durables.) The *ex post* approach also will satisfy this neutrality objective if none of the durables are subject to anticipated capital gains and losses. However, as noted earlier, the *ex post* approach results in the overtaxation of durables with expected capital gains and the undertaxation of durables with expected capital losses.

¹⁶⁹ Discussions of the two equity criteria can be found in Anthony B. Atkinson and Joseph E. Stiglitz, *Lectures on Public Economics* (New York: McGraw-Hill, 1980), p. 356; and Michael J. Graetz, "Expenditure Tax Design," in *What Should Be Taxed: Income or Expenditures?* (Washington, D.C.: Brookings, 1980), p. 171 (and the comments by E. Cary Brown on p. 115 of the same volume).

¹⁷⁰ Also, if durables markets are inefficient, the *ex ante* approach taxes the bonus received by a purchaser who buys at too low a price and forgives tax on the premium paid by a purchaser who buys at too high a price.

¹⁷¹ Capital gains and losses can also arise from changes in the rate of return. These are handled more appropriately by the *ex ante* approach, but will not be discussed further in this pamphlet.

The *ex post* approach is superior with respect to another dimension of economic efficiency, because it promotes riskspreading. Individuals generally cannot obtain private insurance against the risk that their durables might become less valuable (other than insurance against such contingencies as theft and casualties). The *ex post* approach offers partial insurance against this risk through the tax system, which benefits risk-averse individuals. This efficiency gain can be substantial with respect to certain goods, such as housing.¹⁷²

Treatment of durables in existence on the implementation date.—The treatment of durables in existence on the implementation date of a consumption tax is relatively straightforward under the *ex post* approach. Sales of these durables after the implementation date are taxed in the same manner as sales of durables produced after implementation. Since these goods have not previously borne consumption tax, they will be taxed in full on the first sale and will have no previous tax to claim as a credit.

The treatment of these durables under the *ex ante* approach is considerably more difficult. Imposing a consumption tax only on sales of new durables creates windfalls for current owners of existing durables. This might be considered inequitable, especially with respect to valuable long-lived durables. This windfall could be avoided by "marking-to-market" all existing durable goods on the date of enactment of a consumption tax and applying a tax on this amount. This approach raises serious administrative (i.e., measuring the value of all property on a certain date) and liquidity (i.e., requiring taxpayers to remit tax to the government at a time when a cash-generating transaction has not occurred) concerns.

Alternatively, one could impose a consumption tax on the first sale after the date of enactment. If this approach is taken, it is no longer true that sales of used durables are not taxable events under the *ex ante* approach. Such sales would be taxable events if, and only if, the durable had not previously borne tax, i.e., if it had been produced before the implementation date and had not been sold since that date. This approach creates a transition issue, as each time a used durable is sold, it would be necessary to determine whether it had previously borne tax. For example, not all cars on the used car lot would represent "used" (prior tax paid) cars. The significance of this transition issue depends on the useful life of the items being resold. For example, some durable goods (such as personal computers) have relatively short useful lives and the application of a "first-sale" approach would not pose a significant long-term problem. Other goods (such as art collectibles and land), have longer useful lives and a "first-sale" approach would involve extensive recordkeeping.¹⁷³

Administrative concerns.—The *ex ante* approach offers some administrative advantages. Because each good is taxed only once, fewer sales are subject to the consumption tax. In addition, after

¹⁷² It is not clear what costs or imperfections preclude private insurance against these risks and whether such obstacles would also apply to government insurance. It is possible that the administrative costs of offering such insurance as a byproduct of a tax system established for other purposes are less than the administrative costs of writing private insurance policies.

¹⁷³ Administrative concerns are lessened to the extent that the property is subject to a nontax registration requirement (as is the case with most real property as well as certain consumer durables such as motor vehicles and boats).

a transition period, the *ex ante* approach generally subjects only the sales of new goods to tax. These sales are likely to be made by dealers in such goods, who are more likely to maintain the records necessary for tax compliance. Conversely, the *ex post* approach subjects all sales to the consumption tax, including casual sales of used goods by persons who are not dealers in such goods and may be unaware of their tax responsibilities.

As discussed above, the *ex ante* approach may pose administrative difficulties, if it is decided to tax the first sale after the implementation date of preexisting durables on that date. In that case, each sale of a used durable must be examined to determine whether tax has previously been paid.

In addition, application of a strict *ex ante* approach (i.e., only taxing sales of new goods and not applying a "first sale" rule) would not subject to tax the value added by dealers who acquire, refurbish and resell consumer goods. For example, a used car dealer may acquire a decrepit used automobile from a consumer for \$100, rebuild the engine, and resell it to another consumer for \$1,000. The \$900 difference in selling prices represents value added by the used car dealer that should be included in a comprehensive tax base. Imposing the tax on sales by used goods dealers creates a compliance concern under the *ex ante* approach because in order to avoid a cascading of the tax, a credit must be imputed with respect to nontaxable purchases made by the dealer.

Finally, the conversion of a durable good from a (taxable) consumption use to a (nontaxable) investment use (and vice versa) also may create administrative concerns in identifying taxable events and measuring the tax base.

The "lock-in" effect.—One disadvantage of the *ex post* approach is that it induces a lock-in effect for durables whose value has risen since the previous sale. Since this appreciation will be taxed if and when the durable is sold, the owner has an incentive to delay selling. This effect is similar to that induced by the capital gains tax under the income tax system. Conversely, an owner of a durable that has declined in value is encouraged to accelerate the sale of the durable, a "lock-out" effect.

To the extent that sales of used durables are not taxable events under the *ex ante* approach, it avoids lock-in and lock-out effects. However, as discussed above, it may be decided under the *ex ante* approach that the consumption tax will be applied to the first sale after the implementation date of preexisting durables. A temporary lock-in effect will then arise with respect to these durables, because owners would have an incentive to delay the first sale and the imposition of this tax.

Other issues.—The application of a consumption tax to certain durable goods (housing, land, personal property consumer durables, and collectibles) presents additional issues that require special rules. For example, some of these goods may be acquired or held for consumption, investment, or business reasons (or any combination thereof). In addition, the use of such goods may vary from year to year. It is necessary to account for conversions, such as a recreational boat owner who converts his sailboat to a day rental operation. The nature of each of these types of goods also raises additional concerns.

The treatment of housing under a broad-based consumption tax poses difficult issues because: (1) the amount of housing services that ought to be subject to tax (i.e., the consumption element) is not observable on an annual basis in the case of owner-occupied housing; (2) housing may be acquired for, or converted to, consumption, investment, or business purposes, or any combination thereof; (3) in order for the tax to be perceived as fair, renters and owners of housing should be treated similarly; and (4) housing, other than new construction, is often acquired from persons who are not dealers in housing. In addition, the taxation of housing under a consumption tax may present analytical difficulties to those who believe that a consumption tax is intended to be a tax on consumption, yet feel that a portion of an owner-occupier's investment in housing represents savings that should not be subject to tax. Land presents difficulties similar to those presented by housing. In addition, whether housing is used for consumption or other purposes is often readily determinable; land (particularly undeveloped land) does not lend itself to such easy determinations.

Personal property durable goods, which include consumer durable goods (e.g., automobiles, boats, and large appliances) and collectibles (e.g., art, antiques, and baseball cards), pose issues under a consumption tax similar to those posed by housing and land. Specifically, the tax imposed on the initial purchaser of a durable good represents tax associated with the expected consumption value over the entire useful life of the goods. The imposition of the consumption tax on subsequent resales of the good would overtax the item unless there are unanticipated gains with respect to the item. Collectibles pose issues of identifying and separating the elements of consumption and investment. In addition, because of their longevity some consumer durables may become collectibles (e.g., antique cars). On the other hand, personal property is in many ways different from real property because of different uses, frequency of resales, more rapid physical deterioration or obsolescence, relative price differentials, different lock-in effects. Thus, it may be appropriate to provide different rules for the resale of used consumer durables than are provided for housing.

2. Government entities and nonprofit organizations

Theory of measuring the value of governmental and nonprofit activities

General issues

The taxation of government and nonprofit entities raises special issues concerning general social policy, administration and compliance, competitive equity, and intergovernmental relations.¹⁷⁴ Activities of nonprofit organizations that are subject to income taxation under present law as unrelated business income could easily be brought under the business taxation regimes of the proposals described in Part III above. It is the other activities of governments

¹⁷⁴ See U.S. Department of the Treasury, *Tax Reform for Fairness, Simplicity, and Economic Growth: The Treasury Department Report to the President, Volume 3, Value-Added Tax* (November 1984) ("1984 Treasury Report") at 67-72; Tax Executives Institute, *Value-Added Taxes: A Comparative Analysis* (1992) at 29-31; Joint Committee on Taxation, *Factors Affecting the International Competitiveness of the United States*, (JCS-6-91) at 318.

and tax-exempt organizations that raise special issues. Under a consumption-based tax and under a VAT in particular, difficulties arise in the calculation of value added because government and nonprofit entities often provide goods or services on a free-of-charge or subsidized basis. In many cases, there is no identifiable transaction involving, or consumer of, government or nonprofit services.

One of the most fundamental issues in attempting to measure the value of governmental and nonprofit activities is should government and nonprofit entities be regarded as producers of goods and services and when should they be treated as consumers? For example, from a purely theoretical standpoint, the government's national defense activities may be viewed alternatively as (a) the government *producing* a security service for its citizenry or, (b) the government (as agent for, or on behalf of, its citizens) *consuming* on a mutual basis products such as tanks, planes, and munitions, as well as soldiering services of individuals employed in the armed forces. In this regard, examination of VATs in other countries and suggested approaches by commentators reveals considerable diversity in conceptual approaches to the taxation of governments and nonprofits under a consumption-based tax.¹⁷⁵

Under the view of government as producer of goods and services, the value added by government and nonprofit labor and capital resources should be subject to tax, as well as any profits that could be obtained from government or nonprofit operations (even if forgone by the entity).¹⁷⁶ Even so, viewing governments and nonprofits as taxable producers would require modification of the general credit-invoice rules that apply in most foreign countries' VATs because, as discussed above, prices charged by governments and certain nonprofits for goods and services often do not accurately reflect value added.¹⁷⁷

However, if the taxable base of a VAT theoretically is defined as value added *by businesses* with respect to all goods and services in the economy from the first producers of raw materials through retail sellers (i.e., as firms that sell to nonbusiness users),¹⁷⁸ then

¹⁷⁵ Compare the American Bar Association Model (the "ABA Model"), which treats governments and nonprofits as producers whenever more than a nominal charge is imposed with McDaniel and Surrey, who generally treat governments and charities as the ultimate consumer, unless commercial-type goods are sold to identifiable consumers. McDaniel, Paul R. and Stanley S. Surrey, *International Aspects of Tax Expenditures: A Comparative Study* at 91-93 (hereafter cited as "McDaniel and Surrey"). An example of an intermediate approach is Canada's goods and services tax ("GST"). Under the GST, charities are treated as consumers with regard to most of their services, which are VAT-exempt; however, charities also are treated as quasi-businesses and are allowed a 50-percent input credit.

¹⁷⁶ To the extent that a nonprofit or government does not seek a profit that would customarily be included in the fair market price for a good or service, it can be considered to subsidize the consumption of that particular good or service. Failure to tax the "profit" portion of value added by governments or nonprofits indirectly increases the amount of such subsidy, with the result that nonprofit- or governmentally-provided goods and services appear relatively cheaper than for-profit goods and services that are fully subject to VAT. See the discussion below.

¹⁷⁷ In other words, use of the general credit-invoice rules, or even a subtraction-method VAT, is inappropriate with respect to many goods and services provided by government and certain nonprofit entities because the value added by such entities is not accurately determined by reference to the sales price of goods and services they provide minus the cost of inputs upon which VAT previously has been paid. In these instances, the addition method may provide an appropriate mechanism for taxing the value added by governments and nonprofit entities. Under the addition method, the base of the tax would be the governments' or nonprofit organization's wage payments and interest expense. Some government and nonprofit operations generally do not involve subsidies or valuation issues and are, therefore, appropriately taxed under the general credit-invoice regime.

¹⁷⁸ See Weidenbaum, Murray, David Raboy, and Ernest Christian, *The Value-Added Tax: Orthodoxy and New Thinking* at 47 (1989) ("a pure VAT ultimately applies to the value added by

governments and nonprofits generally could be viewed as "nonbusiness users" (i.e., consumers).¹⁷⁹ Under this view, sales to governments and nonprofits are not "inputs" in a business activity, but are treated as retail sales to a collective body of consumers, and any value added by government or nonprofit operations through mutual use of the products purchased from vendors would not be subject to tax. In effect, government and nonprofit operations generally would be treated in a manner similar to self-provided services. Services are not subject to a consumption-based tax when provided by an individual to herself and her family (e.g., products purchased by an individual to protect herself and her home are subject to tax, but her self-provided services in using those products are not subject to additional tax). Likewise, government and nonprofit activities generally could be treated as *collective*, self-provided services provided by a community (e.g., individuals pool their resources through taxes or contributions¹⁸⁰ to provide community protection on a mutual, noncommercial basis).

The primary rationale for excluding self-provided services of individuals and informal groups from the base of a consumption-based tax is administrative (i.e., self-provided services are non-market transactions that are difficult *both* to monitor and to value). The monitoring aspect of this rationale does not apply with equal force in the case of transactions involving separate legal entities such as governments or nonprofits. Monitoring of government and nonprofit activities generally should be easier than monitoring individuals or informal arrangements. However, valuation difficulties remain. Although self-provided services among individuals and informal groups frequently involve noncash or barter transactions, many government and nonprofit operations do not involve a "sale" or identifiable transaction but are subsidized by general tax revenues, contributions, or grants. Moreover, due to the very nature of some government and nonprofit services, no market is involved (e.g., environmental regulation). Thus, it could be argued that, for theoretical and administrative reasons, governments and nonprofits should be treated as ultimate consumers, except when they conduct commercial ventures with identifiable individual consumers.¹⁸¹

every business from the first producer of raw materials through the retail seller (i.e., the company which sells to a non-business user)"). The authors explicitly do not address the complex issues raised in the treatment of governments and nonprofits. *Id.* at xvi.

¹⁷⁹ As under the present-law Federal income tax, the view could be adopted for VAT purposes that activities undertaken without a profit motive generally do not constitute a "trade or business."

¹⁸⁰ Most VATs in other countries, as well as commentators on the subject, treat contributions, gifts, and similar transfers made in a nonbusiness context as nontaxable transactions. See McDaniel and Surrey at 69-70.

¹⁸¹ See McDaniel and Surrey at 73 and 92. Self-provided services generally are not subject to VAT when provided by a group that is not regarded as a separate legal entity (e.g., a family or neighborhood). Consequently, if government and nonprofit entities were viewed as taxable producers, as opposed to collective consumers, then the same services that could escape VAT when provided by individuals to themselves, their families, or through other informal arrangements would be subject to VAT when provided by a government or nonprofit. In effect, the legal form of an undertaking could dictate its VAT treatment. For example, is it appropriate to try to capture the total value added in the case of a barn built under the auspices of a church or other entity, but tax only the materials if the same barn is built by an informal group of neighbors? But see McDaniel and Surrey at 77 (exclusion from tax base of self-provided services should apply only to "activity customarily carried on by individuals in and around their own households").

Inclusion of governmental and nonprofit activities in the VAT base

In general

As discussed above, the treatment of government and nonprofit entities is closely linked to the basic question of what is theoretically intended to be the taxable base of a consumption-based tax. If, as a starting point, the taxable base is defined as the value added with respect to all final goods and services in the economy, then value added by government and nonprofit labor and capital resources should be subject to tax. If governmental provision of goods and services were not subject to tax, there would be a bias towards organizing consumption through the governmental sector. For example, individuals would find it advantageous to ask their elected representatives to establish governmentally owned and operated grocery stores. Purchasing groceries through such a store would be exempt from tax whereas purchasing groceries through a privately operated store would be taxable. Reorganizing the market place (and governments) to take advantage of a governmental imprimatur would reduce the tax base.¹⁸²

In analyzing the application of a consumption-based tax to governmental and nonprofit activities it is useful to classify the activities of governments and tax-exempt organizations as falling into two broad categories: governments¹⁸³ provide goods and services; and governments make transfer payments to individuals.¹⁸⁴

Governmental provision of goods and services

Economic neutrality and the application of a consumption-based tax to goods and services provided by governments and tax-exempt organizations.—Governments provide many goods and services. The sale of government publications and the provision of roads provide examples of the provision of goods and services. Economic neutrality argues that if the novels of Stephen King are to be subject to a consumption-based tax, then the publications of the staff of the Joint Committee on Taxation (sometimes equally scary, if not equally readable) should be subject to the consumption-based tax. Similarly, if the provision of railroad freight transportation services (virtually all privately provided) are to be subject to a consumption-based tax, then the provision of roadway transportation services should be subject to the consumption-based tax.

¹⁸² In the discussion of Part III above, the tax base of a VAT was compared to GDP as calculated in the national income and product accounts. The notion of a consumption-based value added tax was presented in terms of income being devoted to current consumption of goods and services, called consumption, and future consumption of goods and services, called saving. That discussion did not address the national income and products accounting of governments' purchases of goods and services. A basic accounting identity of the national income and product accounts is that total national income (Y) (usually measured as GDP) must equal the sum of the value of private consumption (C), private investment (I), governments' purchases of goods and services (G), and net exports (X). Ignoring net exports, the accounting identity is

$$Y = C + I + G.$$

Investment, I, is exempt from a consumption-based VAT tax base or other consumption-based tax. The accounting identity clearly shows that permitting some or all of consumption to be relabeled as government purchases of goods and services would reduce the tax base substantially.

¹⁸³ The following text will use the word "government" to apply to the activities of both governments and tax-exempt organizations.

¹⁸⁴ Of course, the government also collects taxes, the present discussion is about the uses of the government's resources rather than its source of funds.

The examples of the provision of roads and publications highlight the primary difficulty in applying a VAT or other consumption-based tax to the governmental provision of goods and services—the pricing of governmentally provided goods and services generally is not the same as the pricing of privately provided goods and services. The forces of demand and supply in the market place generally determine the prices of privately provided goods and services. In most cases, the government provides the services of the roadway free to users, unlike the railroad which, driven by the profit motive, charges a price determined by the economic forces of the market place. In private market transactions there is a clear discernable value that can provide the basis for taxation. With governmental provision of roads there is value (or else people would not use the roads) but value is not easily discernable. While governments provide many goods and services at zero price, in other cases, the government charges a price for its good or service, as in the case of the government publication. The government may choose to price the publication below the price that a private publisher might choose. Unlike the example of the road, placing a price on the government publication would provide a basis for taxation but would not necessarily tax the full value of the publication. In both examples the government can be thought of as providing an explicit subsidy to consumption of a particular good or service. To fully tax value, the subsidy must also be measured.

A further problem arises because unlike most goods offered in the private market, many government goods and services are what economists call “collective” or “public” goods, that is, goods the benefits of which can be simultaneously consumed by all individuals rather than privately consumed by only one individual. For example, national defense is collectively consumed. Government publications are privately consumed. While collective goods have value, it may not be possible to conceive of the value being revealed by a market transaction.

The problem of including the value of government-provided goods and services in the consumption tax base may be less severe under a consumed income tax or under a flat tax than under a VAT. A consumed income tax generally treats payment of taxes to State and local governments as consumption and thereby subjects to tax the provision of State and local governmentally provided goods and services. A Hall-Rabushka-type flat tax would tax the wages of government employees. However, without special provisions such a flat tax may not reach the non-wage compensation of government employees. Nor, unlike a taxable business, would a flat tax necessarily apply to any cash surplus or interest expense the government or tax-exempt entity might generate or incur as part of its tax-exempt purpose. A flat tax, therefore, may only partially tax the governmental provision of goods and services. However, as wage costs are the most significant portion of employee compensation, and as labor cost is the major source of value added by governments, the extent to which governmental provision of goods and services is untaxed may not be large.

Application of the VAT to goods and services provided by State and local governments and tax-exempt organizations.—There are two ways one could impose the VAT on the governmentally pro-

vided good. The first option is to impose the VAT on the price charged by the government net of any implicit subsidy provided. The second option is to impose the VAT on the market price on all similar transactions. If the government providing the subsidized good were a local government, and the Federal government imposed a VAT, under the first computation there would be a built-in tax expenditure in favor of the local government's provision of the subsidized good equal to the VAT tax rate times the implicit government subsidy. That is, the value of the subsidy would be untaxed. However, this built-in tax expenditure would keep the relative price of the subsidized and unsubsidized goods the same (the ratio of the subsidized prices to unsubsidized prices throughout the economy would remain the same). Thus, under the second computation, to keep the relative price of the subsidized and unsubsidized goods equivalent, the local government would have to increase its subsidy by the amount of the subsidy multiplied by the VAT tax rate. This is because, in the second case, the full value of the good or service, including any subsidy, is taxed.

Economic neutrality can be maintained if the Federal government provides a tax expenditure for the subsidized good or service or if the State or local government (or tax-exempt organization) increases the value of the subsidy provided.

Application of a Federal VAT to Federally provided goods and services.—Regardless of whether States and local governments are included in the VAT base, it may also be appropriate to consider the desirability of including the Federal Government itself in the base. This decision turns not so much on constitutional grounds as on economic realities.

It may appear administratively redundant for the Federal Government to tax itself on its value added. The Federal Government would be seen as "taking the money out of one pocket and putting it into another pocket." Admittedly, such money shuffling might be administratively wasteful. On the other hand, choices of the subsidies given to different goods and services should not be made absent knowledge of what the "true" VAT-inclusive private market price would be. Requiring each Federal agency to remit VAT to the Federal Treasury would remove incentives for particular agencies to use their budgets to hire in-house employees (on a VAT-free basis) rather than to utilize taxable independent contractors.

In addition, because of perceptions, failure to include the Federal Government in the VAT base may distort economic choices as between the public and private sectors. If the Federal Government were excluded from the VAT base, goods and services provided by it would appear to be relatively cheaper than comparable goods and services provided (on a VAT-inclusive basis) by the private sector. Although this perception is not supported by economic reality, it may nonetheless act to bias consumers in favor of the public sector.

In addition, because of perceptions, absent application of the VAT to the Federal provision of goods and services the Federal Government would look smaller than it otherwise might, and would look smaller than State and local governments that might undertake some of the same activities (e.g., highway construction). To impose the VAT on some Federal provision of goods and services and exempt Federal provision of other goods and services would

distort the true size of different functions within the Federal Government.

Summary—Neutrality argues that one does not want a consumption-based tax to distort the choice between privately provided goods and governmentally (subsidized) provided goods. However, as noted above, a distinguishing feature of governmentally provided goods and services is that their prices generally are not determined in the private market. The analysis above does not say how one should determine the value added of governmental and nonprofit activities, but rather that, in general, the value added should be determined.

Governmental transfer payments

Government as financial service provider.—Social security payments and the AFDC program provide examples of transfer payments. The government provides cash (or cash equivalent vouchers) to individuals who in the private market make purchases. Such purchases will be subject to VAT so there is no need to make special provision for VAT to apply to social security checks *per se*. Similarly, if such government transfers are included in income for purposes of determining consumed income and if social security payments are treated similarly to private pensions under a Hall-Rabushka-type flat tax such government transfers are treated neutrally under the different types of consumption-based taxes.

In providing cash to individuals, the government is acting no differently than a bank that gives cash to a customer making a withdrawal or taking out a loan. Also like a bank, the government will keep records of the account. In its role of record keeper the government is providing financial services. The neutrality arguments given above would suggest that the "financial services" involved in making transfer payments should be subject to a consumption-based tax. To exempt such services from the consumption-based tax would have the following consequences: (1) exemption might make public provision of certain financial services more desirable than private provision; (2) exemption might make public management of pension funds, social security, etc. appear "cheaper" and "more efficient" than private provision; (3) exemption might make the Social Security Administration, an agency that largely provides financial services, appear to be a more efficient provider of government than the Defense Department, an agency that largely provides non-financial services (assuming that the latter's provision of "defense" is subject to the consumption-based tax). Of course, this argument also could be applied to State or local provision of government services. Basically all three of these arguments are arguments of voter/legislator fiscal illusion and honesty in government.

3. Financial services

In general

Financial services encompass a broad spectrum of services provided to business users and ultimate consumers. These services include: (1) financial intermediation—generally, the pooling of funds provided by investors (e.g., bank depositors) and making them available to borrowers; (2) risk pooling—the diversification of risk

for customers through various means, including insurance, guarantees, warranties, and diversification; (3) investment advisory services; (4) market-making and dealer services; and (5) administrative services, such as account management and payment mechanisms (e.g., credit cards or checking accounts). Often, two or more types of financial services are provided to the same user by the same provider in a single transaction. For example, in the case of a checking account, the bank provides a depositor with the services of intermediation (i.e., reinvesting the deposit in a loan to a different customer), and risk pooling (i.e., assuring that the deposit can be withdrawn even if borrowers from the bank default), as well as more conspicuous administrative services.

Financial services raise special policy and implementation issues under a consumption tax imposed at the business level. As discussed below, these issues include whether to include financial services in the base, how to measure the value of financial services, allocating the value of financial services among users, distinguishing financial service providers from other providers, the treatment of imports and exports, and transition issues. These issues are extremely complex. Because of the broad scope of this pamphlet, the discussion of these issues is general in nature and necessarily brief. For simplicity, the discussion also examines these issues with respect to a VAT.

Exemption versus inclusion

The designers of a broad-based VAT must first confront the policy question as to whether even to include financial services in the tax base. Some commentators argue that certain types of financial services should not be subject to the VAT because taxing such services would be tantamount to taxing savings.¹⁸⁵ For example, under this argument, a person who pays a brokerage commission to purchase or sell a share of stock held for investment has not consumed anything: the fee is incurred solely in the service of savings, and as such reduces the amount of the savings (or the return on savings). Thus, they contend that taxing financial services would result in a further reduction in returns on savings. This leads them to argue that the VAT should be imposed on a "savings exclusive" basis, i.e., financial services that are associated with the acquisition, maintenance and disposal of investments or other savings should not be subject to the VAT.¹⁸⁶

Another reason for excluding financial services from the base of a VAT is that, unlike other services where the price is often clearly specified, the value of most financial intermediation services is not easily determined. Typically, the charge for financial intermediation services is blended with other elements of the transaction. For example, financial institutions provide financial intermediation services by pooling the funds provided by depositors and making them available to borrowers. These institutions often

¹⁸⁵ See McDaniel and Surrey at 81. The American Bar Association report on the VAT follows this approach for non-intermediation services, but concludes that a VAT should tax the value of intermediation services performed in connection with a loan or other grant of credit. p. 168-9.

¹⁸⁶ As discussed in more detail below, the exclusion of these "savings" transactions from the base can be done through an exemption or through zero-rating.

do not charge explicit fees to the depositors and borrowers; rather, the institutions are compensated for the financial intermediation services by the spread between the interest rates charged on loans and the interest rates paid to depositors. For other financial services, financial institutions may charge separate fees, but such fees do not necessarily represent the actual value of the particular services rendered. For example, banks often offer low or no cost checking services to customers who maintain a minimum balance in their checking accounts.

Similarly, a life insurance provider generally charges no explicit fee for its services. Instead, the provider receives premiums, generally only a small part of which comprises a fee to the provider.¹⁸⁷ Investment returns on the premiums also may cover a portion of the cost to policyholders of the insurance service (as evidenced by a lower rate of return being credited to policyholders and the remaining return on investment going to the insurance provider).¹⁸⁸ Thus, the value of the financial services that should be subject to tax is the "spread" between the premiums and financial earnings of the provider and the claims and cash surrender values paid by the provider.

These difficulties in ascertaining the value of financial services and the actual costs to consumers of financial services have led most countries that impose a consumption-based VAT to exempt types of financial services for which no explicit fee is charged.¹⁸⁹ Financial services for which a separate fee generally is charged (e.g., safety-deposit boxes) are typically subject to tax.

For several reasons, other commentators (and recently, many providers of financial services) have criticized the exemption for financial services from a VAT. First, they argue that the use of a financial service is consumption that should be taxed, just like any other service. For reasons of economic efficiency and equity, they argue that financial services therefore should be included in the base of any consumption-based VAT and should be taxed at the rate that generally applies to ordinary goods and services.¹⁹⁰ They believe that this treatment would maintain economic neutrality and prevent the tax system from favoring or disfavoring financial services over other goods and services. If one type of service is subject to tax, but another is not, the tax system distorts the relative

¹⁸⁷ The remaining premium amount generally would cover the actuarial risk of payment under the policy, including any investment element.

¹⁸⁸ An insurance company may provide other financial services for which a portion of policy premiums and investment returns constitutes compensation. For example, an insurance company may furnish intermediation services similar to a financial institution because it pools the premiums it receives and makes these funds available to others through investments or loans.

¹⁸⁹ In general, all countries that are members of the European Union (EU) provide a VAT exemption for the lending activities of banks and similar financial institutions and for insurance, reinsurance, and related services performed by insurance brokers and agents. See Sixth Council Directive of May 17, 1977, "On the Harmonization of the Laws of the Member States Relating to Turnover Taxes—Common System of Value Added Tax: Uniform Basis of Assessment," Official Journal No. L145, art. 13B (a) and (d), reprinted in 2 CCH Common Mkt. Rep., par 3165 (1977). Some countries that exempt some or all financial services impose a separate excise tax on such services that may be intended to be a proxy for including financial services in the VAT base. Germany permits certain financial intermediaries to elect to be subject to tax.

It should be noted that most countries (including the EU countries) that impose a VAT utilize the credit invoice method. Other forms of consumption taxes may be better suited to measuring the value of financial services, as discussed more fully below.

¹⁹⁰ See, e.g., Alan Schenk and Oliver Oldman, "Analysis of Tax Treatment of Financial Services Under a Consumption-Style VAT: A Report of the American Bar Association Section of Taxation Committee on Value Added Tax," 44 Tax Lawyer 181 (1991).

values of the services to consumers, which, in turn, distorts the consumers' choices.¹⁹¹

Second, exemption may be disadvantageous to taxpayers where financial services are provided to business customers. Under the VAT systems in other countries, exempting financial services from tax means that financial institutions are not considered taxpayers, and consequently may not claim any refunds of the tax they may have paid on business purchases. Business customers of exempt financial institutions, in turn, are not allowed to treat as a business purchase any amounts paid to the exempt financial institution. This generally results in cascading (multiple imposition) of tax with respect to the business purchases of the provider.¹⁹²

Thus, if it is determined that neutrality and elimination of cascading are desirable goals, a method must be adopted for measuring the value of financial services to include the value in the tax base and to provide business customers with a business purchase deduction for the cost of such services. In contrast, if it is determined that financial services are a cost of saving or are too administratively difficult to measure, the provision of financial services should be exempt from tax or zero-rated.

Methods of including or excluding value of financial services

(1) Addition method

Under the addition method, value added would equal the sum of (a) labor costs¹⁹³ and (b) profit.¹⁹⁴ The VAT would not be imposed directly on financial services for which a separate charge is stated because such services would be subject to the VAT. Because of the need to determine profits, the addition method generally is not viewed as having advantages over the modified subtraction approach, as discussed below.

(2) Cash flow method and modified subtraction method

The two approaches that have garnered the most attention are the "flow of funds" method and the "modified subtraction method" of taxing the value of financial services.¹⁹⁵ Under flow of funds

¹⁹¹ Other forms of economic neutrality that should be maintained include neutrality among consumers, neutrality among different providers, and intertemporal neutrality (i.e., no distortion of an individual's decision to save or consume). It is also argued that an exemption for financial services favors wealthier individuals because they tend to purchase greater amounts of financial services than lower-income individuals. This, in turn, may make the consumption tax more regressive. For a discussion of economic neutrality and fairness, see Part IV.C.2. above.

¹⁹² Generally, the provider will attempt to pass the cost of taxes paid on its purchases to customers (possibly harming its competitive position with respect to potential customers who might alternatively self-finance or might purchase other goods or services). In such a case, the failure to allow the customer a deduction for the cost (including the taxes passed thru by the provider) will result in cascading of the tax. Alternatively, the provider could decide to bear the cost of the tax itself, thereby depressing its profits.

¹⁹³ For this purpose, labor costs would include all amounts (whether wages or employee benefits) paid to employees as well as amounts paid to independent contractors. Labor costs, however, would not include amounts paid to an independent contractor if the financial service provider receives an invoice from the independent contractor indicating that VAT has been paid on the independent contractor's services.

¹⁹⁴ For this purpose, profit could be determined based on taxable income (as determined under the income tax), but reduced by a stated return to equity. This reduction would serve as a proxy for excluding from the term "profit" the earnings on the taxpayer's own capital, which might be complex and administratively difficult to calculate.

¹⁹⁵ See Alan Schenk, *Taxation of Financial Services Under a Value-Added Tax: A Critique of the Experience Abroad and the Proposals In the United States*, 25 and Satya Poddar and Morely

method, virtually all cash flows out would be treated as purchases, and all cash flows in would be treated as sales. Every payment to a financial intermediary, other than contributions of capital, would be treated as a purchase by the customer and a sale by the financial intermediary.

Under the modified subtraction approach, the taxable amount for a financial service provider is measured in the same fashion as the subtraction method, except that it includes specified financial receipts (e.g., dividends, interest and capital gains) and allows a deduction for similar specified financial expenditures. In order to determine the VAT tax base under the modified subtraction method, the spread also would be reduced by a return on equity. This is necessary to equalize the treatment of financial and non-financial businesses.

The principal variation between the flow of funds approach and the subtraction method is the treatment of principal-type payments: the flow of funds approach would include them whereas the subtraction method would exclude them. Thus, an advantage of the flow of funds approach is that principal and interest payments need not be distinguished. A principal disadvantage of this approach is that the inclusion of principal-type payments is problematic with respect to start-up and growing entities, transition to the VAT, and rate changes.

(3) Exempt financial services

Another alternative would be to exempt financial services from the tax. As discussed previously, this is the approach chosen by most other countries that impose a VAT. Under this approach, the value of financial services is generally not measured, and no tax is imposed on that value. In addition, tax paid on inputs allocable to financial services is not allowed as a deduction or credit. In practice, many countries exempt only the implicit fees charged for financial services, such as the charge for intermediation implied in the interest rate for borrowing or lending. Stated fees for financial services are often subject to tax under the standard tax method.

Exempting financial services from the VAT generally is proposed as a way to avoid the complexities of taxing implicit charges for financial services. Exemption eliminates the need to determine the value of financial services for which implicit fees are charged, or to allocate the value of the services among users. Exemption at an intermediate stage may result in cascading, i.e., the total VAT collected exceeds the VAT collected if no exemption were granted.¹⁹⁶ Exemption at the final stage will exempt the value-added at that stage but, in contrast to zero rating, exempting financial services

English, *Taxation of Financial Services Under a VAT, Issues and Options* (papers for presentation at the NIA Financial Services Taxation Conference, Clearwater, Florida, Feb. 24-16, 1994); Barham, Poddar and Whalley, *The Tax Treatment of Insurance Under a Consumption Type Destination Basis VAT*, 40 Nat'l Tax J. 171 (1987); Hoffman, Poddar and Whalley, *Taxation of Banking Services Under a Consumption Type, Destination VAT*, 40 Nat'l Tax J. 547 (1987).

¹⁹⁶ Under a credit-invoice method, exemption at an intermediate stage will cause the total VAT collected to exceed the tax collected if no exemption were granted. This is because no input credit would be granted to purchasers of financial services. Whether this is true in a subtraction method VAT depends upon whether business users are allowed to take business purchases deductions for exempt financial services.

at the final stage would impose a tax on the taxable inputs to those services.

This approach has two primary problems. First, this approach is not without its own administrative complexities. The exemption of financial services from a VAT requires a specific definition of financial services. Because businesses can claim credits for taxable inputs attributable to their taxable businesses, an entity that engages in both a taxable business and an exempt financial services business must allocate its inputs among these businesses. A strong incentive exists for a financial intermediary to allocate as many of its taxable inputs to its taxable business as possible to increase its deductible inputs or recovery of VAT credits. In addition, the inability to claim deductions or credits for taxable inputs allocable to an exempt business may encourage financial intermediaries to integrate their financial services business with other, nonfinancial businesses. For example, all financial intermediaries require legal and accounting advice. Obtaining these services from independent lawyers and accountants would cause a financial intermediary to incur VAT that could be avoided if the lawyers or accountants worked directly for the financial intermediary.

The second problem with this approach is that it does not satisfy the neutrality principle. In particular, it under-taxes the value of financial services rendered to households, and, as discussed above, it can cause the cascading of taxation on the taxable inputs allocable to financial services rendered to business users. Any correlation between the amount of over-taxation of financial services used by businesses and the under-taxation of financial services used by individuals would be purely coincidental. Moreover, a financial intermediary that could supply non-financial services, such as legal and accounting services, to its household customers and have those services treated as exempt financial services, would be able to provide such services at a lower cost than other providers.

(4) Zero-rate financial services

Financial services could be zero rated by imposing no tax on the value of financial services, and allowing financial intermediaries a credit for all the inputs on their taxes.¹⁹⁷

Like exempting financial services, the amount of VAT collected depends upon the stage that is zero-rated. However, the effect on the various stages of exemption versus zero rating is different. If an intermediate stage is zero-rated, a full VAT will be collected; if a retail stage is zero-rated, no VAT will be collected.

While it eliminates cascading of the tax, zero-rating has many of the same problems as exemption. First, zero-rating would distort retail consumers' choices by making financial services more attractive relative to other services. Second, administrative complexities and false incentives would arise from the need to distinguish between zero-rated financial services and other services.

¹⁹⁷ As discussed above, some have argued that the cost of financial services borne by households in connection with savings and investment should not be subject to the VAT. If this argument prevailed, it would weigh in favor of zero rating some financial services.

However, partial zero-rating may be useful, in the context of a subtraction-method VAT, as a means of allocating the value of financial services between business users and consumers, as discussed in "Allocation to Users", below.

Allocation to users

To avoid cascading of the tax, business purchasers of financial services could be entitled to claim a deduction or credit with respect to the financial services provided to them. This would allow business purchasers of financial services to obtain the same tax treatment as users of other goods and services. Under this approach, financial intermediaries would be required to allocate the implicit fees it derives from financial services among the recipients of the services. This raises two issues: how the implicit fees should be allocated, and to whom should the fees be allocated.

One alternative is to allow financial intermediaries to allocate the implicit fees based on specified factors.¹⁹⁸ These factors could include the interest paid or received by a customer, the amount insured or the premium payment under a customer's insurance policy, and the labor expended by the financial intermediary in connection with transactions with a user. Rules would have to be devised to prevent overallocation of such fees to business users. Another approach would be to adopt a percentage approach (e.g., a percentage of interest payments) for deduction of implicit fees.^{198A}

The second issue is to whom should the implicit fees be allocated. A financial institution's implicit fee clearly should be allocated in part to its depositors, lenders, and borrowers. Beyond these obvious relationships, it may be difficult to determine who a financial intermediary's customers are. For example, if a financial intermediary buys a publicly traded debt obligation, does it render financial services to the issuer of the obligation, or the person from whom it buys the obligation? In many cases, it may not be possible to determine who was the seller of the obligation. In other cases, the financial institution may be providing different services to different groups of customers in the same transactions. For example, if a bank takes a deposit and buys a debt obligation from the issuer, then makes a market in the debt obligations, it is providing both financial intermediation services to the depositor and issuer of the debt obligations, and broker-dealer services (i.e., buying and selling the debt obligations) to the issuer and the buyers and sellers of the debt obligations. It may be very difficult to determine when the financial intermediary is acting in a particular capacity. In addition, there are transactions in which there is no known issuer, seller, or buyer that could be treated as receiving services. Examples of these transactions include exchange traded options and futures contracts.

Another alternative to avoid cascading is to apply the subtraction-method only to financial services provided to households and to zero-rate financial services rendered to businesses. Instead of taxing the value of all financial services rendered by a financial intermediary and allocating VAT credits to business users of the

¹⁹⁸ This is the general approach adopted by S. 722, as described in Part III.C. hereof.

^{198A} S. 722 adopts this type of approach for borrowings from financial institutions.

services, as under the subtraction method, no tax would be imposed on the financial services rendered to business users, and the financial intermediary would be entitled to a VAT credit or deduction for all the taxable inputs to financial services. In theory, zero rating financial services would have the same effects as the modified subtraction method: both would eliminate cascading of the tax on financial services used by businesses and would fully tax the services rendered to households.^{198B} If the zero rating approach was followed, the charge for a particular financial service would vary depending on whether the user was a business or a household because the price for the household would include the tax and the price for a business user would not. If the subtraction method was followed for all users, the price for a particular transaction would be the same for both a business and a household, with the input credit or deduction the business user can claim reducing the effective price after the fact.

The administration of the two approaches, however would differ. Zero rating financial services would require providers to determine whether services are being used for business or household purposes. The determination generally would have to be made before any transaction was entered into because the pricing of the transaction would depend on whether the services were zero rated.

Exports and imports

If it is determined that the provision of financial services should be included in a VAT, treatment of imports and exports of financial services must be addressed. Under a destination-based tax, imported goods and services would be subject to tax, and the tax on exported goods would be eliminated, through zero-rating or exemption. As a result, special rules are necessary to determine where financial services are consumed.

Financial services¹⁹⁹ are unlike most other types of services because they can be performed wholly outside the United States for the benefit of a person within the United States. Thus, no easily determinable geographic element exists that can be used to judge where the services are used or performed. For example, if a person opens an account with a branch of an international bank, the integrated functions of the bank may make it difficult to determine where the services to the depositor are performed. Moreover, since the person can move around the world, or draw on its account for use in various places, it may not be easy to determine where the services are used. Thus, a formalistic rule on whether a service is imported or exported is necessary in the case of financial services.

A rule that treats financial services as rendered in the jurisdiction where the provider is resident would essentially eliminate the "destination" principle. U.S. financial services providers seldom would be treated as exporting financial services because they would rarely have to send employees abroad to perform the services. U.S.

^{198B} Zero rating financial services provided to businesses and taxing those services under the modified subtraction method would have different effects if the financial services were used to produce goods or services that themselves were exempt from the VAT.

¹⁹⁹ Services that produce information or documentation that can be transmitted to the user across national lines also create similar difficulties. For example, a person preparing a computer program for a customer could do the work in one country, and communicate the program into the United States over the phone or by sending a disc.

households obtaining financial services from an offshore provider seldom would be treated as importing financial services. This would discourage foreign persons from using financial services provided by institutions resident in the United States,²⁰⁰ and would encourage U.S. households to seek, and financial intermediaries to provide, financial services from offshore entities.

Under a destination-based tax, a better alternative seemingly would be to impose the tax based on the residence of the user or, with respect to insurance, the location of the risk. This type of approach would have the following consequences. If a U.S. person insured a foreign risk, no U.S. tax would be imposed on the transaction. Conversely, if a foreign person insured a U.S. risk, the transaction would be subject to a U.S. tax. This approach may create two forms of compliance problems. First, taxpayers have an incentive to avoid the tax by claiming to be nonresident or that the risk is a foreign risk. Thus, in order for this approach to function properly, rules and procedures would need to be implemented to ensure that customers were properly treated as residents and risks are treated as U.S. risks. Second, collection problems exist in the case of foreign providers of financial services to household users (particularly where the provider has no connection with the United States).

Transition issues

Transition issues arise with respect to transactions where premiums or deposits are made before the effective date of the tax and claims are paid or withdrawals occur after the effective date. Similar issues would arise if the tax rate changes after the effective date.

(4) Provisions for relief for poor individuals

One common criticism of consumption taxes is that they are regressive, that is, as a taxpayer's income increases, the amount of tax paid as a fraction of income decreases. Some of this apparent regressivity is a result of the way the average amount of taxes paid is computed. Individuals' incomes fluctuate more than consumption, so individuals with temporarily low incomes will be measured as paying a large average amount of tax and those with temporarily high incomes will be measured as paying a small average amount of tax. If the amount of consumption taxes paid is measured relative to lifetime income rather than annual income, consumption taxes look less regressive. If one uses annual consumption as the measure of well-being rather than income, then a broad-based, single-rate consumption tax should be proportional: as a taxpayer's *consumption* increases, the amount of tax paid *as a fraction of consumption* is constant.²⁰¹

In any case, designers of consumption taxes often make special provisions to insure that poor individuals receive some relief from the tax. The methods available to provide that relief depend in part on the design of the consumption tax. For an individual consump-

²⁰⁰ This is especially true since foreign users might be subject to their home country VAT on imported services, since many countries determine where financial services are rendered according to the residence of the user.

²⁰¹ See the discussion in Part IV.C.3.

tion tax, such as the Nunn-Domenici proposal and the flat taxes of Hall and Rabushka, H.R. 4585, and S. 488, it is possible to provide relief through personal exemptions and a standard deduction. These zero-bracket amounts insure that individuals whose tax bases are small do not have tax liability and that the average tax liability rises as the base increases beyond the zero-bracket amount. In fact, the Hall-Rabushka proposal grew out of an attempt to make a VAT more progressive. By shifting the collection of the tax on wages from the employer (as would be the case under a subtraction-method VAT) to the employee (through an individual tax return), the Hall-Rabushka tax allows some personalization of the consumption tax. The Nunn-Domenici proposal reaches the same end with its individual component, which is a free-standing individual consumption tax of the cash-flow approach. In addition, the Nunn-Domenici proposal includes graduated marginal rates.

Note that even if the standard deductions and the personal exemptions were the same size in the flat taxes and the Nunn-Domenici proposals (and if the marginal rates above those zero-bracket amounts were the same), the relief for poor individuals would not necessarily be the same. The difference arises because the flat tax proposals use the tax prepayment approach while the Nunn-Domenici proposal uses the cash-flow approach. Under the tax prepayment approach, the base measures wage income in a given year, so the zero-bracket amount exempts a certain amount of wages. Under the cash-flow approach, the base measures consumption in a given year, so the zero-bracket amount exempts a certain amount of consumption. If individuals with identical lifetime wages have different patterns of consumption and saving over their lifetime, their ability to use the zero-bracket amounts each year may also differ.²⁰²

For a point-of-sale consumption tax such as a retail sales tax or a VAT of either the credit-invoice or subtraction method, other methods of relieving the tax on poor individuals are required, since there is no individual return to be filed.

Proxy for personal exemptions

One could attempt to recreate the effect of personal exemptions and standard deductions in a point-of-sale consumption tax by allowing an exemption for the first \$x of goods and services purchased by any individual, regardless of income. One proposal for a retail sales tax includes such an exemption.²⁰³ The exemption could be delivered either as a cash grant to all individuals or through a system of debit cards for individuals making purchases (similar to the "smart cards" used in some welfare programs). Either delivery system could be difficult to administer. In addition, there would be a question of how to define the unit entitled to an exemption.

The loss of revenue from the exemption payments would be recouped by a higher tax rate; this tradeoff is implicit in the direct consumption tax proposals. Since the exemption amount is pro-

²⁰² The flat tax proposals considered in Part III.B. reduce some of this disparity because they allow cash-flow treatment for qualified pension saving.

²⁰³ Stephen Moore, "The Economic and Civil Liberties Case for a National Sales Tax," mimeo, CATO Institute.

vided to all individuals, there is no income range where individuals face increased marginal tax rates from the phasing out of the exemption.

Special tax credit for poor individuals

A common suggestion for relief (whether for a point-of-sale consumption tax or as a supplement to an individual consumption tax) is a separate, special credit for eligible individuals. Eligibility could be based on income, with the credit phased out for taxpayers with income above some threshold. If one were to choose this approach, then one may want to measure income as permanent (rather than annual) income. For example, a law student who has a low annual income may not be as sympathetic a case for a credit as another person with the same annual income and little prospects for increased income in the future. Since permanent income is not easily ascertainable, annual consumption could be used as a proxy on the assumption that it tracks permanent income better than does annual income. Under an individual, cash-flow consumption tax, the base provides a ready measure of consumption.

If consumption is not felt to be the proper criterion for eligibility for relief, then whether the proposed consumption tax is an addition to or a replacement for the current income tax has some bearing on the feasibility of providing relief outside of the consumption tax. If it is decided that the personal exemptions and standard deductions in the individual consumption taxes do not provide sufficient relief, then it may be difficult to provide relief based on income if no income-measurement system is in place.²⁰⁴ If the income tax is abolished and information reporting is dismantled, then one may be forced to "re-invent" an income reporting and filing system, at least to cover individuals who wish to claim the credit. For the case of the cash-flow consumption tax, attempting to craft income-based relief may overwhelm any simplification advantages of cash-flow accounting.²⁰⁵

An alternative to attempting to measure income would be to base the credit on wages for Social Security purposes. While the measurement system would be in place, there are other problems with this alternative. Relief would not be available to poor individuals who are not working, including unemployed and retired individuals, who may be sympathetic cases for relief. If the amount of the credit is a fraction of Social Security wages (up to some limit) and if the credit rate exceeds the self-employment tax rate, individuals would have an incentive to claim fictitious self-employment income in order to claim the credit. This incentive is present in the earned income tax credit (EITC) today.²⁰⁶

Another potential problem with a special credit is that it would only be available periodically, at the time of filing. If annual filing is used, individuals would get the credit in one lump, rather than

²⁰⁴ It may also be difficult to maintain current spending programs for poor individuals if there is no income data from the tax system, since many of these programs have income tests for eligibility. This point also applies to the development of a new, direct spending program to provide relief specifically from the consumption tax.

²⁰⁵ George K. Yin, "Accommodating the 'Low-Income' in a Cash-Flow or Consumed Income Tax World," *Florida Tax Review*, 2(8), 1995, pp. 445-91.

²⁰⁶ Eugene Steuerle has referred to these incentives as encouraging a "superterranean economy." See George K. Yin, "Summary of EITC Conference Proceedings," *The American Journal of Tax Policy*, 11(2), Fall 1994, pp. 305-6.

throughout the year. More frequent filings would help spread the payments, but at the cost of added administrative burdens for both the individuals and the government. The EITC has a similar dependence on annual filing, and an advance payment mechanism has been developed to attempt to deliver some of the credit ratably throughout the year in the paychecks from employers. A similar system could be designed for a consumption-tax credit, but further steps would be needed to reach individuals who would be eligible for the credit but are not working. In practice, the EITC advance payment mechanism is used by few eligible individuals (less than one-half of one percent, according to a study of 1989 data²⁰⁷).

Special treatment of certain consumption goods

A common approach in State retail sales taxes and European credit-invoice VATs is special treatment for goods and services such as food, medicine, and housing (lower rates or zero-rating in a credit-invoice VAT, lower rates or exemption from a retail sales tax) to reduce the burden on poor individuals. While it does reduce the measured regressivity of a consumption tax, the relative relief may be small, since it also provides relief to non-poor individuals, who consume the goods in greater amounts than poor individuals. Caspersen and Metcalf²⁰⁸ recently estimated how the ratio of consumption taxes to income changes across income deciles. For a credit-invoice VAT on a comprehensive base, the ratio of taxes to income was 2.8 times higher in the lowest income decile than in the highest decile when annual income was used and 1.3 times when lifetime income was used. Zero-rating food, housing, and health costs reduced those numbers to 2.3 times (annual income) and 1.1 times (lifetime income).

Removing goods and services from the base of the tax also requires that the rate of the tax on the remaining base be increased in order to raise the same revenue. Higher rates may increase the inefficiency of the tax, especially in distorting individuals' choices between labor and leisure.²⁰⁹ The provision of special treatment for some goods leads to administrative difficulties in defining the favored goods (if medicine is excluded, does anti-dandruff shampoo get an exclusion?) and may lead to political pressure to give special treatment to other goods. Despite these problems, special treatment of certain goods has the advantage that it does not require any administrative system separate from that used to collect the rest of the consumption tax, and it follows the general State practice.

Under a subtraction-method VAT, zero-rating is problematic for goods and services that can be used as both a final good by consumers and an input by other firms. Suppose a zero rate is provided for as flour. For flour that is sold directly to a final consumer, zero-rating will eliminate the tax on the good, the identical result

²⁰⁷ U.S. General Accounting Office, "Earned Income Tax Credit: Advance Payment Option is Not Widely Known or Understood by the Public," GAO/GGD-92-26, February 1992.

²⁰⁸ Erik Caspersen and Gilbert Metcalf, "Is a Value Added Tax Regressive? Annual Versus Lifetime Incidence Measures," *National Tax Journal*, 47(4), December 1994, pp. 731-46. For another set of estimates of the incidence of a VAT, see Department of the Treasury, *Tax Reform for Fairness, Simplicity, and Economic Growth, Volume 3, Value-Added Tax*, November 1984.

²⁰⁹ See Part IV.C.2. for a more in-depth discussion of the distortionary effect of marginal rates on work incentives.

as under a credit-invoice VAT. But for the flour used as an input by other firms (such as bakers), the zero rate will eliminate tax on the value added in stages of production prior to flour production. Any consumer goods produced from the flour will only bear a tax on the value added subsequent to the flour production. By contrast, zero-rating of flour under a credit-invoice VAT will have no effect on the tax imposed on goods made from flour: they will bear the full tax rate (assuming the final good is non zero-rated). Under a subtraction-method VAT, the rate of tax applied to a final good depends upon whether any zero-rated goods were used in producing the final good.²¹⁰

Direct spending programs

Another avenue for giving relief to poor people is to go outside the tax system, either through existing transfer programs or a new program. Transfer programs that are already indexed for inflation could be left alone; on average, the indexation will protect beneficiaries from any general price increases that result from the imposition of the consumption tax.

A problem with using existing transfer programs to provide relief to the poor is that the consumption tax may burden some poor individuals who do not receive government transfers. Absent an expansion of the eligibility rules for the programs, they would not get relief even if the levels of transfers are increased in conjunction with the consumption tax.

²¹⁰ See Part III.A. for a discussion of exemptions and zero-rating under a VAT.

V. Comparative Statistics on the Revenue Systems of Certain Countries

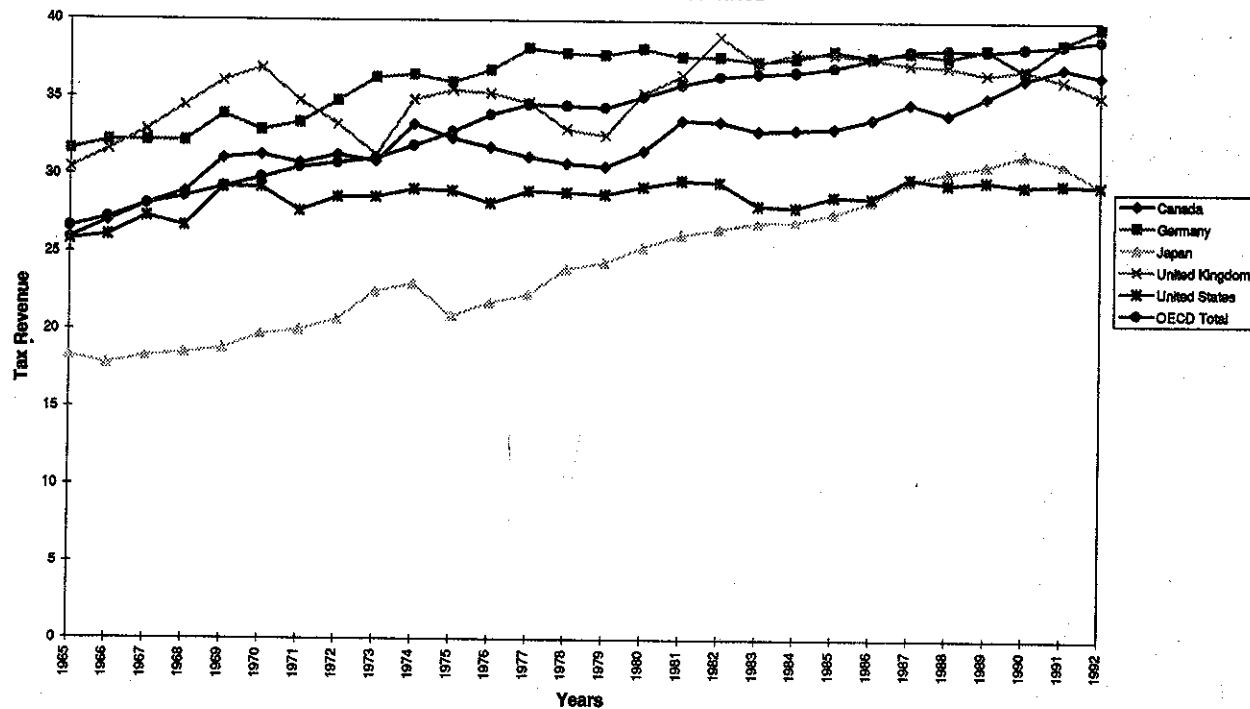
The national, State and local governments of the United States collect revenues from income-based taxes on the income of individuals and the income of corporations. The governments of the United States collect revenues from consumption-based taxes from general retail sales and taxes on specific goods and services. The governments of the United States collect revenues from payroll taxes, taxing the wages of employed individuals. The governments of the United States also collect revenues from taxes on the wealth of individuals such as property taxes and the estate and gift taxes. In drawing on these same tax bases, the revenue systems of the western democracies are broadly similar. The United States relies more heavily on income taxes and less heavily on general consumption taxes than many of the western democracies. Nevertheless, income taxes generally are the predominant revenue source for the western democracies. Replacing the Federal income taxes with a consumption-based tax would substantially alter the revenue system of the United States.

1. *Comparison of tax receipts*

In most western economies, the proportion of tax receipts as a share of gross domestic product ("GDP") has risen over the past 27 years. Figure 5 graphs total tax receipts, including those of States and other subnational governments, but excluding nontax revenues such as fees, as a percentage of GDP for the average of all 24 Organization for Economic Co-Operation and Development ("OECD") countries, and, individually, Canada, Germany, Japan, the United Kingdom, and the United States for the period 1965-1992.²¹¹ As suggested by Figure 5 while tax receipts have grown as a percentage of the GDP of western democracies, the United States has experienced a relatively small rate of increase of tax receipts as a percentage of GDP in comparison to other countries over the 27-year period.

²¹¹ These countries were chosen for comparison as each has been a major trading partner of the United States over the postwar era.

Figure 5 -- Taxes as a Percentage of GDP, 1965-1992
Selected OECD Countries



Source: OECD, Revenue Statistics of OECD Member Countries, 1965-1993

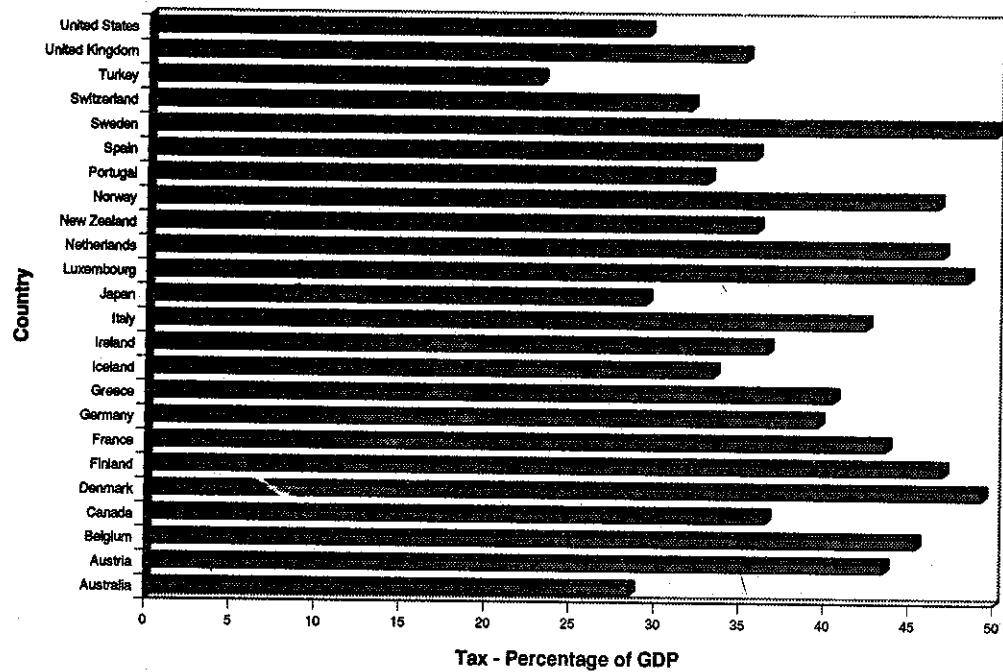
In 1992, the United States ranked twenty-second among the 24 OECD countries in terms of taxes as a percentage of GDP. Tax revenues as a percentage of GDP were 29.4 percent in the United States in 1992. The lowest percentage among OECD countries was in Turkey, at 23.1 percent, and the highest in Sweden at 50.0 percent. The average for the 24 OECD countries was 38.8 percent.²¹² When tax receipts of each country are converted to dollars,²¹³ the United States ranked sixteenth in total tax receipts per capita at \$6,757 per person. Among OECD member countries the low figure was \$607 per person in Turkey and the high figure was \$14,234 in Sweden. The OECD average is \$8,315 per person.²¹⁴ Figures 6 and 7 below display total 1992 tax receipts as a percentage of 1992 GDP, and 1992 tax receipts expressed in dollars per capita for the United States and the other OECD countries.

²¹² Organization for Economic Co-Operation and Development, *Revenue Statistics of OECD Member Countries, 1965-1993* (Paris: OECD), 1994.

²¹³ Foreign currency was converted to dollars for this purpose using average of daily exchange rates for 1992.

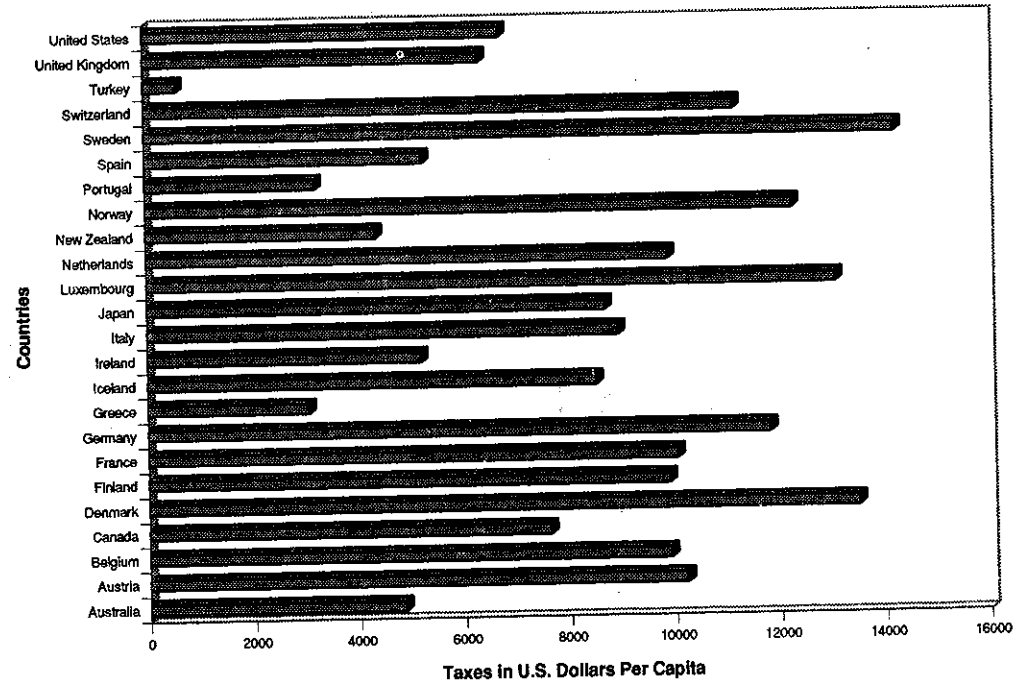
²¹⁴ OECD, *Revenue Statistics of OECD Member Countries, 1965-1993*.

Figure 6 – 1992 Taxes as a Percentage of GDP - OECD Countries



Source: OECD, Revenue Statistics of OECD Member Countries, 1965-1993

Figure 7 -- 1992 Taxes in U.S. Dollars Per Capita - OECD Countries



Source: OECD, Revenue Statistics of OECD Member Countries, 1965-1993

2. Composition of tax receipts across countries

The composition of tax receipts varies substantially across countries. Figure 8 below shows the relative reliance of the United States, Canada, Germany, Japan, the United Kingdom, and the average of OECD countries on individual income taxes, corporate income taxes, social security taxes, property taxes, general consumption taxes (including VATs and general sales taxes), and specific consumption or excise taxes.²¹⁵ Canada relies most heavily on the individual income tax followed by the United States, both above the OECD average. Among these countries, Japan is the most reliant on the corporate income tax. It accounted for more than 17 percent of total Japanese tax receipts. This is more than twice the percentage for the United States or the United Kingdom and more than four times the percentage for Germany. General consumption taxes are significant revenue sources in Canada, Germany, and the United Kingdom, and generally for OECD countries. The United States and Japan rely less on general consumption taxes. Japan had no general consumption taxes prior to imposition of a VAT in April 1989. Its current VAT is assessed at a rate of three percent with a generous exclusion for small businesses. The U.S. general consumption taxes consist of State and local general sales taxes. The United States and Japan generate the smallest proportion of their revenue from taxes on goods and services whether general consumption taxes or taxes on specific goods and services. In 1992, 15 percent of total tax receipts in the United States were attributable to taxes on specific goods and services (7.4 percent) or general consumption (7.6 percent). The OECD average was 28.6 percent.

The western economies generally all rely more heavily on income taxes, both individual and corporate than on specific taxes on goods

²¹⁵ For both Figure 8 and Table 7, the categorization of the types of taxes are made according to procedures developed by the OECD. The OECD attempts to make its classifications so that the data are comparable across countries. The classification of taxes into income taxes, property taxes, and goods and services taxes are generally governed by the base on which the tax is levied. The data represent combined tax receipts of all levels of government (Federal, State, and local) within a given country. The following definitions are employed by the OECD:

Income taxes—Taxes levied on the net income or profits of individuals and enterprises. These include social security contributions based on net income after deductions and exemptions for personal circumstances. When social security contributions are based on eligible earnings, payroll, or number of employees without deductions or exemptions for personal circumstances, the taxes are considered social security taxes (see below). For countries employing a credit imputation method for integrating individual and corporate income taxes (e.g., the U.K. advance corporation tax), the full amount of any credit is treated as a reduction in individual income taxes whether the credit reduces individual income tax liability or is paid as a cash refund. (Tax credits for corporations with respect to dividends paid to other corporations are deducted from the corporate income tax category.)

Social security taxes—All compulsory contributions that are paid to institutions of general government and are earmarked for the provision of social security benefits; are levied as a function of earnings, payroll, or the number of employees; and are made by insured persons or their employers. Social security benefits include unemployment insurance benefits and supplements; accident, injury and sickness benefits; old-age, disability and survivors pensions; family allowances; and reimbursements for medical and hospital expenses or for provision of hospital or medical services.

Property taxes—Recurrent and non-recurrent taxes on the use, ownership or transfer of property. These include taxes on immovable property or net wealth, taxes on the change of ownership of property through inheritance or gift, and taxes on financial and capital transactions. It does not include taxes on capital gains resulting from property sales.

General consumption taxes—Includes all taxes, other than import and export duties, levied on the production, leasing, transfer, or sales of a wide range of goods and services. The category includes value added taxes, sales taxes, and multi-stage cumulative taxes.

Taxes on specific goods and services—Excise, customs and imports duties, taxes on gambling and other taxes that do not form part of a general tax as described above.

Source: Organization for Economic Co-Operation and Development, *Revenue Statistics of OECD Member Countries, 1965-1993* (Paris: OECD), 1994.

and services or general consumption taxes. In 1992, individual and corporate income taxes accounted for more than one third of the country's tax revenue in all of the countries listed in Figure 8, with the exception of Germany, where they accounted for 32.0 percent. For the United States, income taxes accounted for 41.5 percent of revenue. The comparable OECD average was 36.5 percent.

Figure 8. Percentage Distribution of Tax Receipts by Type of Tax, Selected Countries, 1992

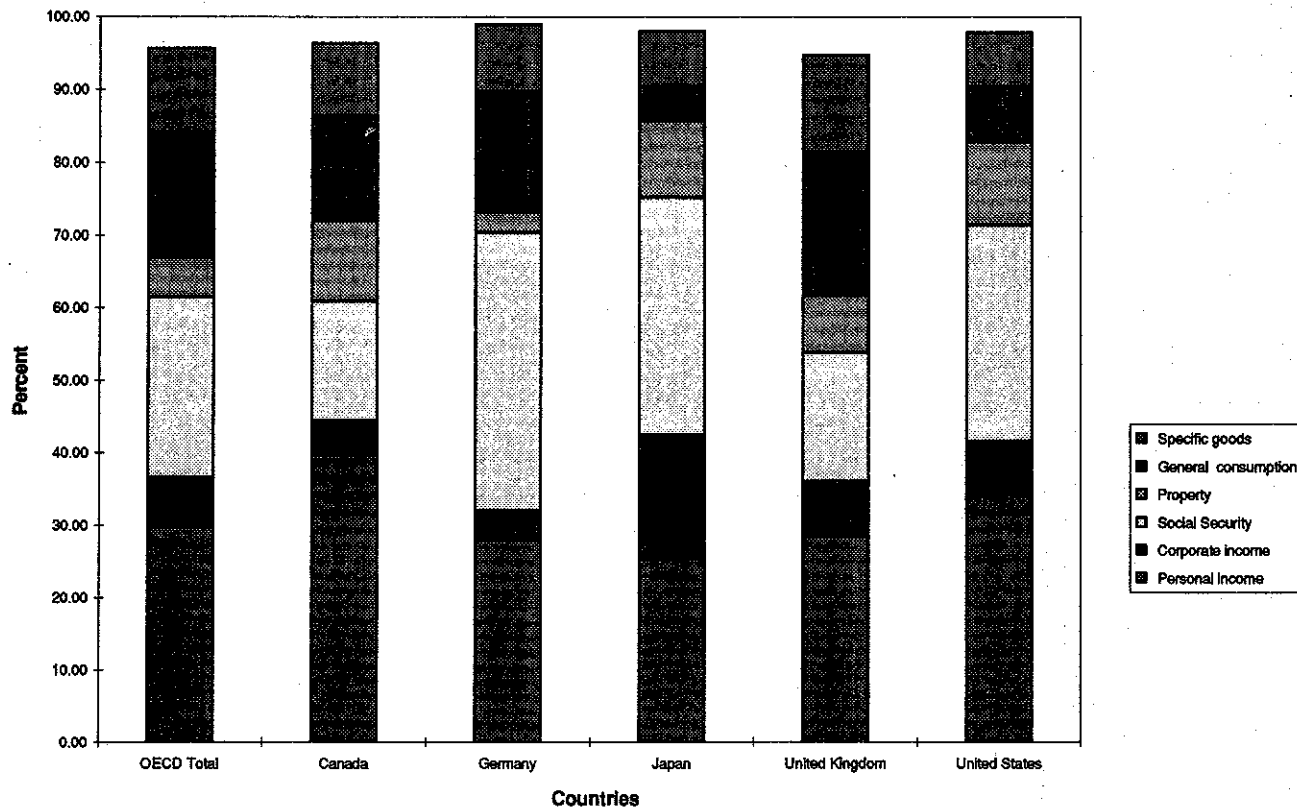


Table 7 shows the composition of taxes as a percentage for Canada, Germany, Japan, the United Kingdom, the United States, and the OECD average in 1992 and at five-year intervals between 1965 and 1990. One noticeable trend in all the countries except the United Kingdom is the growth of social security taxes as a percentage of total receipts. Again, with the exception of the United Kingdom, corporate income taxes generally have declined as a percentage of total tax receipts. During this period, in addition to Japan, the United Kingdom, Germany, and most recently Canada introduced VATs. These new taxes generally have had a small effect on proportion of revenues generated from the taxation of goods and services as in each case other taxes on goods and services, either general taxes or specific excise taxes, were reduced or eliminated when the VATs were initially introduced.

Table 7.—Percentage Distribution of Tax Receipts by Type of Tax, Certain OECD Countries, Selected Years

Country	1965	1970	1975	1980	1985	1990	1992
Canada							
Personal income	22.60	32.40	32.80	34.10	35.20	41.10	39.60
Corporate income	14.90	11.30	13.60	11.60	8.20	7.20	4.80
Social Security	5.60	9.70	10.00	10.50	13.50	14.40	16.50
Property	14.30	12.80	9.50	9.10	9.30	9.50	11.10
General consumption	17.80	14.40	12.50	11.50	13.20	14.50	14.30
Specific goods	16.80	13.30	13.60	13.00	13.00	9.60	10.00
Germany							
Personal income	26.00	26.70	30.00	29.60	28.70	27.60	28.00
Corporate income	7.80	5.70	4.40	5.50	6.10	4.80	4.00
Social Security	26.80	30.30	34.00	34.30	36.50	37.50	38.40
Property	5.80	4.90	3.90	3.30	3.00	3.40	2.70
General consumption	16.50	17.10	14.60	16.60	15.80	16.60	16.50
Specific goods	14.60	12.90	10.80	9.30	8.70	9.20	9.30
Japan							
Personal income	21.70	21.50	23.90	24.30	24.70	26.80	25.30
Corporate income	22.20	26.30	20.60	21.80	21.00	21.50	17.10
Social Security	21.80	22.30	29.00	29.10	30.30	29.20	32.80
Property	8.10	7.60	9.10	8.20	9.70	9.00	10.50
General consumption	4.20	4.80
Specific goods	25.00	20.90	15.10	14.10	12.10	7.30	7.50
United Kingdom							
Personal income	29.80	31.40	37.90	29.80	27.10	28.60	28.40
Corporate income	7.10	9.10	6.70	8.30	12.50	10.90	7.60
Social Security	15.40	13.90	17.40	16.60	17.90	17.10	17.80
Property	14.50	12.40	12.70	12.00	11.70	8.70	7.90
General consumption	5.90	6.50	8.80	14.40	15.20	16.50	19.70

Table 7.—Percentage Distribution of Tax Receipts by Type of Tax, Certain OECD Countries, Selected Years—Continued

Country	1965	1970	1975	1980	1985	1990	1992
Specific goods	24.90	19.90	14.80	13.10	13.70	12.60	13.30
United States							
Personal income	30.50	35.20	32.80	36.90	35.70	35.80	34.30
Corporate income	15.80	12.70	10.80	10.20	7.10	7.40	7.20
Social Security	16.40	19.30	24.60	26.20	29.40	29.50	29.90
Property	15.30	13.60	13.20	10.10	10.10	10.80	11.40
General consumption	4.60	5.60	6.70	6.60	7.40	7.60	7.60
Specific goods	14.60	11.30	9.50	7.80	7.90	6.80	7.40
OECD Total¹							
Personal income	25.90	27.70	30.70	32.00	30.40	29.80	29.70
Corporate income	8.90	8.70	7.50	7.40	7.80	7.70	6.80
Social Security	18.10	19.60	23.20	23.70	23.90	24.10	25.00
Property	7.80	7.00	6.00	5.20	5.10	5.50	5.50
General consumption	11.80	13.40	13.30	13.70	15.50	17.10	17.10
Specific goods	24.00	20.40	16.20	14.80	13.70	11.30	11.50

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¹ Individual country GDP and revenue figures converted to dollars using exchange rates prevailing for each year.

Source: Organization for Economic Co-Operation and Development, *Revenue Statistics of OECD Member Countries, 1965-1993* (Paris: OECD), 1994.